



City of Edina

4801 West 50th Street • Edina, MN 55424



May 2014

Stormwater Pollution Prevention Program

*for Managing the City of Edina's
Municipal Separate Storm Sewer System*

WSB Project No. 2092-65



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CITY OF EDINA

STORM WATER POLLUTION PREVENTION PLAN

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Section I.
Municipal Separate Storm Sewer System Permit for Reauthorization



Minnesota Pollution Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013
Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. **No fee** is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at <http://www.pca.state.mn.us/ms4>.

Submittal: This MS4 SWPPP Application for Reauthorization form must be submitted electronically via e-mail to the MPCA at ms4permitprogram.pca@state.mn.us from the person that is duly authorized to certify this form. All questions with an asterisk (*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or claudia.hochstein@state.mn.us, Dan Miller at 651-757-2246 or daniel.miller@state.mn.us, or call toll-free at 800-657-3864.

General Contact Information (*Required fields)

MS4 Owner (with ownership or operational responsibility, or control of the MS4)

*MS4 permittee name: City of Edina *County: Hennepin
(city, county, municipality, government agency or other entity)
*Mailing address: 4801 W. 50th Street
*City: City of Edina *State: MN *Zip code: 55424
*Phone (including area code): 952-927-8861 *E-mail: mail@edinamn.gov

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

*Last name: Adler *First name: Laura
(department head, MS4 coordinator, consultant, etc.)
*Title: Water Resources Coordinator
*Mailing address: 7450 Metro Blvd.
*City: City of Edina *State: MN *Zip code: 55439
*Phone (including area code): 952-826-0445 *E-mail: ladler@edinamn.gov

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Carlson First name: Jesse
(department head, MS4 coordinator, consultant, etc.)
Title: Water Resources Project Manager
Mailing address: 477 Temperance Street
City: St. Paul State: MN Zip code: 55101
Phone (including area code): 651-286-8464 E-mail: jcarlson@wsbeng.com

Verification

- I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this MS4 SWPPP Application for Reauthorization form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). Yes
- I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. Yes

Certification (All fields are required)

- Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name: Scott Neal
(This document has been electronically signed)

Title: City Manager Date (mm/dd/yyyy): 12/30/2013

Mailing address: 4801 W. 50th Street

City: Edina State: MN Zip code: 55424

Phone (including area code): 952-826-0401 E-mail: sneal@EdinaMN.gov

Note: The application will not be processed without certification.

Stormwater Pollution Prevention Program Document

I. Partnerships: (Part II.D.1)

- A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved

- B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere_Partnerships*.

The City of Edina currently has no formal partnerships with other MS4s. They do promote educational activities presented by the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District. The watershed districts also have active permitting programs for erosion and sediment control and post-construction stormwater management. The goal will be to develop the following partnerships:

- Education program implementation
- Construction site erosion and sediment control regulation
- Post-construction stormwater management regulation
- Project funding for TMDL implementation projects

II. Description of Regulatory Mechanisms: (Part II.D.2)

Illicit discharges

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)? Yes No

1. If yes:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
 Policy/Standards Permits
 Rules
 Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_IDDEreg*.

2. If no:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

The City Code Chapter 23, Article II., Public Nuisances has language regarding the pollution or contamination of any well, cistern, stream, lake, canal, or body of water by sewage, creamery, or industrial waste, or other substance; however based upon review the City will either create a new ordinance or revise the existing ordinance to address the requirement of the MPCA MS4 permit. During the development of the new or revised ordinance the City will review the EPA model ordinance to prepare an ordinance that effectively prohibits non-stormwater discharges as per Part III.D.3.b of the MS4 permit and eliminates those discharges using ERPs as per Part III.B of the MS4 permit. The final ordinance will be adopted within 12 months of the City receiving permit coverage.

Construction site stormwater runoff control

A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls? Yes No

1. If yes:

a. Check which type of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
 Policy/Standards Permits
 Rules
 Other, explain: _____

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

City Code Chapter 10, Article II. - Landscaping, Screening and Erosion Control

City Code Chapter 10, Article IV. - Demolition Permit and Buidling Permits for Single and Two Family Dwelling Units

City Code Chapter 10, Article VII. - Littering in the Course of Construction Work

City Code Chapter 30, Article I. - Vegetation

Direct link:

All codes listed above can be found at the following link:

<http://library.municode.com/index.aspx?clientId=15157>

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_CSWreg.*

B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)? Yes No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

We will update our construction site stormwater runoff control regulatory mechanism to be at least as stringent as the MPCA CSW permit. This effort will be completed within 12 months of the date permit coverage is extended.

C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below:

- | | |
|--|---|
| 1. Best Management Practices (BMPs) to minimize erosion. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 2. BMPs to minimize the discharge of sediment and other pollutants. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 3. BMPs for dewatering activities. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4. Site inspections and records of rainfall events | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 5. BMP maintenance | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 6. Management of solid and hazardous wastes on each project site. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 7. Final stabilization upon the completion of construction activity, including the use of perennial vegetative cover on all exposed soils or other equivalent means. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 8. Criteria for the use of temporary sediment basins. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

The City currently has language in City Code Chapter 10, Articles II., IV., and VII. and City Code Chapter 30, Article I. regarding erosion control, sediment control, and management of solid wastes, but the language is not as stringent as MPCA CSW requirements. The City code may be revised to include language that is at least as stringent as the MPCA CSW permit for items C.1 through C.5, C.7, and C.8 or the City will seek to establish a partnership with the watersheds.

The City will meet with the watersheds within 2 months of receiving permit coverage to determine if establishing a partnership is feasible. If a partnership is feasible and the City wishes to develop a partnership it will be established within 6 months of receiving permit coverage. The partnership will be formally adopted by referencing the City of Edina's Comprehensive Water Resources Management Plan (CWRMP) in their ordinance where Section 3.2.2, policies 6 & 7 of the plan adopts the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District's rules by reference. A partnership agreement will also be established to define the role and responsibilities of each partner. If a partnership is not established the City will develop a stormwater ordinance that will meet the requirements of the MPCA CSW permits.

Post-construction stormwater management

A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities?

Yes No

1. If **yes**:

a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

Ordinance Contract language

Policy/Standards Permits

Rules

Other, explain: The City has an approved Comprehensive Water Resources Management Plan. Section 3.2.2, policies 6 & 7 of the plan adopts the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District's rules by reference.

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

City Code Chapter 10, Article IV. - Demolition Permit and Building Permits for Single and Two Family Dwelling Units

Comprehensive Water Resources Management Plan, Section 3.2.2, Policies 6 & 7

Nine Mile Creek Watershed District Stormwater Rule

Minnehaha Creek Watershed District Stormwater Rule

Direct link:

City Code Chapter 10, Article IV.: <http://library.municode.com/index.aspx?clientId=15157>

Comprehensive Water Resources Management Plan:

http://edinamn.gov/index.php?section=engineering_water_resource

Nine Mile Creek Watershed District Stormwater Rule: <http://www.ninemilecreek.org/Regulatory/Rule04.pdf>

Minnehaha Creek Watershed District Stormwater Rule:

<http://www.minnehahacreek.org/sites/minnehahacreek.org/files/pdfs/regulatory/Stormwater%20Management%20Rule.pdf>

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention:
MS4NameHere_PostCSWreg.

B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1. **Site plan review:** Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review and approval, prior to start of construction activity. Yes No

2. **Conditions for post construction stormwater management:** Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):

a. For new development projects – no net increase from pre-project conditions (on an annual average basis) of: Yes No

- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
- 2) Stormwater discharges of Total Suspended Solids (TSS).
- 3) Stormwater discharges of Total Phosphorus (TP).
- b. For redevelopment projects – a net reduction from pre-project conditions (on an annual average basis) of: Yes No
- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
- 2) Stormwater discharges of TSS.
- 3) Stormwater discharges of TP.
- 3. Stormwater management limitations and exceptions:**
- a. Limitations
- 1) Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas: Yes No
- a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.
- b) Where vehicle fueling and maintenance occur.
- c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
- d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
- 2) Restrict the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas: Yes No
- a) With predominately Hydrologic Soil Group D (clay) soils.
- b) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.
- c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
- d) Where soil infiltration rates are more than 8.3 inches per hour.
- 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow exceptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process. Yes No
- 4. Mitigation provisions:** The permittee's regulatory mechanism(s) shall ensure that any stormwater discharges of TSS and/or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:
- a. Mitigation project areas are selected in the following order of preference: Yes No
- 1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
- 2) Locations within the same Minnesota Department of Natural Resource (DNR) catchment area as the original construction activity.
- 3) Locations in the next adjacent DNR catchment area up-stream
- 4) Locations anywhere within the permittee's jurisdiction.
- b. Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP. Yes No
- c. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements of this part. Yes No
- d. Mitigation projects shall be completed within 24 months after the start of the original construction activity. Yes No
- e. The permittee shall determine, and document, who will be responsible for long-term maintenance on all mitigation projects of this part. Yes No
- f. If the permittee receives payment from the owner and/or operator of a construction activity for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management in Part III.D.5.a(2), the permittee shall apply any such payment received to a public stormwater project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e). Yes No

5. **Long-term maintenance of structural stormwater BMPs:** The permittee's regulatory mechanism(s) shall provide for the establishment of legal mechanisms between the permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs not owned or operated by the permittee, that have been implemented to meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)). This only includes structural stormwater BMPs constructed after the effective date of this permit and that are directly connected to the permittee's MS4, and that are in the permittee's jurisdiction. The legal mechanism shall include provisions that, at a minimum:

- a. Allow the permittee to conduct inspections of structural stormwater BMPs not owned or operated by the permittee, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator of that structural stormwater BMP has not conducted maintenance. Yes No
- b. Include conditions that are designed to preserve the permittee's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the permittee, when those responsibilities are legally transferred to another party. Yes No
- c. Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with the Permit (Part III.D.5.a(2)). If site configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

B.3.a.1: The City is exploring the possibility of establishing a partnership with the Minnehaha Creek Watershed District (MCWD) and Nine Mile Creek Watershed District (NMCWD) to meet this requirement. The City will meet with the watersheds within 2 months of receiving permit coverage to determine if establishing a partnership is feasible. If a partnership is feasible and the City wishes to develop a partnership it will be established within 6 months of receiving permit coverage. The partnership will be formally adopted by referencing the City of Edina's Comprehensive Water Resources Management Plan (CWRMP) in their ordinance where Section 3.22, policies 6 & 7 of the plan adopts the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District's rules by reference. A partnership agreement will also be established to define the role and responsibilities of each partner and in this instance include language to prohibit the use of infiltration as described in the Permit (Part III.D.5.a(3)(a)(.1)). If a partnership is not established the City will develop a stormwater ordinance that will meet the requirements of the MPCA MS4 permit.

B.3.a.2: The City is exploring the possibility of establishing a partnership with the MCWD and NMCWD to meet this requirement. The City will meet with the watersheds within 2 months of receiving permit coverage to determine if establishing a partnership is feasible. If a partnership is feasible and the City wishes to develop a partnership it will be established within 6 months of receiving permit coverage. The partnership will be formally adopted by referencing the City of Edina's Comprehensive Water Resources Management Plan (CWRMP) in their ordinance where Section 3.22, policies 6 & 7 of the plan adopts the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District's rules by reference. A partnership agreement will also be established to define the role and responsibilities of each partner and in this instance include language to restrict the use of infiltration as described in the Permit (Part III.D.5.a(3)(a)(.2)). If a partnership is not established the City will develop a stormwater ordinance that will meet the requirements of the MPCA MS4 permit.

B.4.d.: The City is exploring the possibility of establishing a partnership with the MCWD and NMCWD to meet this requirement. If a partnership is established it will include a requirement to complete mitigation projects within 24 months after the start of the original construction activity as described in the Permit (Part III.D.5.a(4)(d)). This will occur using the same process as described above.

B.5.c.: The City is exploring the possibility of establishing a partnership with the MCWD and NMCWD to meet this requirement. If a partnership is established it will include a requirement to address BMP modifications in the future as described in the Permit (Part III.D.5.a(5)(c)). This will occur using the same process as described above.

III. Enforcement Response Procedures (ERPs): (Part II.D.3)

A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)? Yes No

1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere_ERPs*.
2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:

The City will develop draft ERPs within 6 months of receiving permit coverage. The draft ERPs will include requirements for site inspections, criteria for elevating enforcement, and enforcement tools. The will be developed for MCM 3, 4, and 5. Enforcement mechanisms considered may

include:

- Notice of Violations
- Stop Work Orders
- Securities in the form of a performance bond, letter of credit, or cash deposit
- Misdemeanor
- Partnerships with the watersheds for enforcement of their maintenance agreement for post-construction stormwater BMPs.

The draft ERPs will be incorporated in the City Code, policy document, or a formal partnership with the watersheds within 12 months of receiving permit coverage.

B. Describe your ERPs:

The current ERPs are include in the following City Codes: Chapter 1, Sec. 1-18; Violations, Chapter 10, Article II.; Landscaping Screening, and Erosion Control, Chapter 10, Article IV.; Demolition Permits and Building Permits for Single and Two Family Dwelling Units, and Chapter 30, Article I.; Vegetation.

The City Code includes the following enforcement mechanisms:

- Misdemeanors
- Requirement for securities
- Stop work orders

IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

The City GIS administrator updates and maintains all of the City's GIS information. The storm sewer system is updated annually with road reconstruction projects as-built information will be collected for new developments/redevelopments. The map is also updated as the City inspects their storm sewer system.

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1. The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes. Yes No
2. Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate. Yes No
3. Structural stormwater BMPs that are part of the permittee's small MS4. Yes No
4. All receiving waters. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172. Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1. All ponds within the permittee's jurisdiction that are constructed and operated for purposes of water quality treatment, stormwater detention, and flood control, and that are used for the collection of stormwater via constructed conveyances. Yes No
2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed conveyances. Yes No

D. Answer **yes** or **no** to indicate whether you have completed the following information for each feature inventoried.

1. A unique identification (ID) number assigned by the permittee. Yes No
2. A geographic coordinate. Yes No
3. Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional judgment. Yes No

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

- E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA Yes No on the form provided on the MPCA website at: <http://www.pca.state.mn.us/ms4> , according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere_inventory*.

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

V. Minimum Control Measures (MCMs) (Part II.D.5)

A. MCM1: Public education and outreach

1. The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your **current** educational program, including **any high-priority topics included**:

The City of Edina is comprised of a large percentage of single family residential. The other land uses include industrial, commercial, multi-family residential, and parks. The priority of the education program has been mainly centered on issues associated with single family residential. The City sends educational information using the following:

- About Town newsletter
- Announcements made in the City Extra email notification system
- Announcements made using social media
- Use "Hometown Heroes" to help celebrate people who take pride in the community
- Video message either posted on-line or aired on the cable access channel
- Website
- Newcomer packet
- Public Works Pipeline

When events are being held in the City the Minnehaha Creek Watershed District or Nine Mile Creek Watershed District the City either partners or sponsors those events.

2. List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
<i>Distribute Educational Materials</i>	<i>The City will distribute a minimum of three educational publications via City mailings, workshops, presentations, website postings, or newsletters per calendar year. This BMP will be revised in the new permit term to prioritize educational activities.</i>
<i>Implement an Education Program</i>	<i>The City or its designee will develop and distribute educational material and present an overview of the MS4 program and 6 minimum control measures used within the City's SWPPP at each annual public meeting, via City mailings or newsletters, and on the City's storm water web page. The City will provide stormwater education and outreach programs for residents within the City annually.</i>

	<i>This BMP will be revised in the new permit term to prioritize educational activities.</i>
<i>City Website</i>	<i>The City will update its existing storm water webpage with additional water resource related issues. Topics may include, SWPPP information, best management practices, illicit discharge prevention and detection information, information on non-point source pollution, and local contact information for residents to request further information on specific stormwater topics or to report a stormwater related infraction.</i>
<i>City Newsletter</i>	<i>The City will develop then distribute water resource related articles in the City newsletter. Article topics may include best management practices, illicit discharge information, and non-point source pollution, etc. Annually the City will distribute a minimum of two stormwater related articles.</i>
<i>Coordination of Education Program</i>	<i>City staff will coordinate with the <u>NMCWD</u> and <u>MCWD</u> to distribute educational materials and promote outreach programs. Annually the City will promote at least up to two educational workshop or presentations.</i>
BMP categories to be implemented	Measurable goals and timeframes
<i>Program Evaluation</i>	<i>During yearly SWPPP review, consider which materials are most effective for our program and audiences, Use this information to determine printing numbers for future education materials. Consider information from citizen feedback related to all aspects of our SWPPP to determine education needs on a yearly basis.</i>

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Jennifer Bennerotte, Communications and Technology Services Director

B. MCM2: Public participation and involvement

1. The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

The City of Edina is comprised of a large percentage of single family residential. The other land uses include industrial, commercial, multi-family residential, and parks. The priority of the education program has been mainly centered on issues associated with single family residential. The City sends educational information using the following:

- About Town newsletter
- Announcements made in the City Extra email notification system
- Announcements made using social media
- Use "Hometown Hereos" to help celebrate people who take pride in the community
- Video message either posted on-line or aired on the cable access channel
- Website
- Newcomer packet
- Public Works Pipeline

When events are being held in the City the by Minnehaha Creek Watershed District or Nine Mile Creek Watershed District the City either partners or sponsors those events.

2. List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
<i>Annual Public Meeting</i>	<i>The City will host an annual public meeting and record the</i>

	<i>number of attendees at the public meeting, all comments received, and responses to each comment in the record of decision. The effectiveness of this BMP will be measured by the number of residents who attend the annual public meeting.</i>
<i>Comply with Public Notice Requirements</i>	<i>The City will submit a public meeting notice to the local newspaper. This goal will be met by publishing the public meeting notice at least 30 days in advance of the meeting date.</i>
<i>Solicit Public Input</i>	<i>The City will conduct a public meeting and host a website on the City's Stormwater Pollution Prevention Program. The goal of this BMP will be met by hosting and recording all public comments received (if any) at the public meeting.</i>
<i>Consider Public Input</i>	<i>The City will conduct a public meeting and host a website on the City's Storm Water Pollution Prevention Program. City staff will respond to all public comments and statements received from the public meeting, and document any proposed changes to the SWPPP for final approval by City Engineer (if applicable). The goal of this BMP will be met by documenting all written and oral input.</i>

<i>BMP categories to be implemented</i>	<i>Measurable goals and timeframes</i>
<i>Coordination meeting</i>	<i>The City will annually hold a coordination meeting involving the Minnehaha Creek Watershed District and Nile Mile Creek Watershed. If a formal agreement is established with the watersheds the meeting would include discussing assistance with educational activities, erosion control, post-construction stormwater management, and TMDL implementation.</i>
<i>SWPPP Information Available at Annual Festival</i>	<i>Make the SWPPP and other important stormwater resources available at an annually held City event. People will be able to provide comments. This may take place of the annual public meeting.</i>

3. Do you have a process for receiving and documenting citizen input? Yes No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

B.3. The City will develop written procedures for receiving, documenting and storing citizen input as described in the permit (Part III.C.2.b). Procedures will be in place within 12 months following the date permit coverage is extended

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Laura Adler, Water Resources Coordinator

C. MCM 3: Illicit discharge detection and elimination

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

The City has a nuisance ordinance that prohibits the pollution of public water. City Staff and public works employees are trained to look for any signs of an illicit discharge while on the job and during their system inspections. The City is also aware of the necessary action in the event of a spill and the need to contact the Minnesota Duty Officer. ERPs will be developed to guide the actions the City will take to respond to an illicit discharge.

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

- a. Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.e.-f.)Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation). Yes No
- b. Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools. Yes No
- c. Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation. Yes No
- d. Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating Yes No

land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge.

- e. Procedures for the timely response to known, suspected, and reported illicit discharges. Yes No
- f. Procedures for investigating, locating, and eliminating the source of illicit discharges. Yes No
- g. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the small MS4. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061. Yes No
- h. When the source of the illicit discharge is found, the permittee shall use the ERPs required by the Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s). Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.2.c to C.2.h: The City will formalize the current practices to develop Standard Operating Procedures (SOPs) for Illicit Discharge Detection and Elimination. The City currently incorporates illicit discharge inspections into the the evaluation of the City's stormwater conveyance system including:

- Structural stormwater BMPs
- Ponds
- Outfalls
- Facility investigations

The SOPs will include procedures for identifying priority ares, tracking illicit discharge, responding in a timely fashion, eliminating illicit discharge if they are detected, and using City of Edina's ERPs. Training will be provided to all staff that may be responsible for identifying illicit discharges. The training will be a part of ongoing stormwater training with City staff. Procedures will be in place within 12 months following the date permit coverage is extended.

3. List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
<i>Storm Sewer System Map</i>	<i>The City will review and update storm sewer map annually. Updates made will be the result of City projects and development/redevelopment.</i>
<i>Regulatory Control Program</i>	<i>The City will review existing ordinances and, if necessary, develop a city ordinance related to illicit and non-stormwater discharges into the City's storm sewer and surface/ground waters. The goal of this BMP will be met by reviewing existing city ordinances and implementing a specific ordinance related to illicit/non-stormwater discharges (if necessary).</i>
<i>IDDE Plan</i>	<i>The City will develop and implement a program to detect and reduce non-stormwater discharges, including illegal dumping. Procedures for detection may consist of visual inspections for non-stormwater discharges on City owned land and private property (as requested). Inspection frequency may be conducted concurrent with the outfall inspections and be included as a part of routine activities.</i>
<i>Public and Employee Illicit Discharge Information Program</i>	<i>The City or its designee will discourage illegal dumping by educating the public (City residents, businesses, and staff) on its potential sources and effects as well as alternative uses for unwanted materials. This BMP includes providing information on recycling options, services, and programs within the City such as drop-off sites for household hazardous waste. The City will also review the current educational activities undertaken by its staff to identify, prevent, and reduce illicit discharges from daily public works activities and other general City operations.</i>

	<p>The City has identified and evaluated the following categories of non-stormwater discharges (as defined in Part V.G.3.e): <i>Water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetland, de-chlorinated swimming pool discharges, and street wash water, discharges or flows from fire fighting activities.</i></p> <p>The City has determined the above referenced sources of non-stormwater discharge to be insignificant pollutant contributors to the MS4 system.</p>
<i>Identification of Non Stormwater Discharges and Flows</i>	

BMP categories to be implemented	Measurable goals and timeframes
<i>Inspections</i>	<i>Annually inspect locations identified as high-priority outfalls around high-risk establishments (industrial facilities, fast food restaurants, car washes, historical issues, and vehicle repair shops)</i>
<i>Illicit Discharge Investigation</i>	<i>If illicit connections are suspected televise sewer system, collect grab samples, or perform other effective testing procedures to find illicit connections in the system.</i>
<i>Community Reporting Options and Documentation Procedures</i>	<i>The City will evaluate the need to develop a link on the City website where all complaints can be logged.</i>

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)? Yes No
- If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

C.4., The City will develop written procedures for receiving, documenting and storing citizen input as described in the permit (Part III.D.3.h). The procedure may include incorporating a link on the website and will include a record of all complaints received and follow-up activity that was performed. Procedures will be in place within 12 months following the date permit coverage is extended.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:
- Laura Adler, Water Resources Coordinator*

D. MCM 4: Construction site stormwater runoff control

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

The City requires review of construction site erosion and sediment control (ESC) plans before projects begin, and works with contractors to ensure appropriate and correct use of erosion and sediment control BMPs is being implemented on site. The building inspection department is primarily responsible for checking compliance with construction site ESC plans.

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):
- a. Have you established written procedures for site plan reviews that you conduct prior to the start of construction activity? Yes No
 - b. Does the site plan review procedure include notification to owners and operators proposing construction activity that they need to apply for and obtain coverage under the MPCA's general permit to *Discharge Stormwater Associated with Construction Activity No. MN R100001*? Yes No
 - c. Does your program include written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the permittee? Yes No
 - d. Have you included written procedures for the following aspects of site inspections to determine compliance with your regulatory mechanism(s):
 - 1) Does your program include procedures for identifying priority sites for inspection? Yes No
 - 2) Does your program identify a frequency at which you will conduct construction site Yes No

inspections?

- 3) Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections? Yes No
- 4) Does your program include a checklist or other written means to document construction site inspections when determining compliance? Yes No
- e. Does your program document and retain construction project name, location, total acreage to be disturbed, and owner/operator information? Yes No
- f. Does your program document stormwater-related comments and/or supporting information used to determine project approval or denial? Yes No
- g. Does your program retain construction site inspection checklists or other written materials used to document site inspections? Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

D.2.c., The City will develop written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public as described in the Permit (Part III.D.4.c). Procedures will be in place within 12 months following the date permit coverage is extended.

D.2.d., City will develop written procedures for conducting site ESC inspections as described in the Permit (Part III.D.4.d). The written procedures will also define the roles that the City and the watersheds will play in ESC site inspections as may be established in the partnerships between the City and the watersheds. Procedures will be in place within 12 months following the date permit coverage is extended.

D.2.g., City will develop written procedures for retaining documents of site ESC inspections as described in the Permit (Part III.D.4.d). The written procedures will also define the roles that the City and the watersheds will play in documenting construction site inspections as may be established in the partnerships between the City and the watersheds. Procedures will be in place within 12 months following the date permit coverage is extended.

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
<i>Ordinance or other Regulatory Mechanism</i>	<i>The City will review the current permit stipulations/city codes relating to project specific site erosion and sediment control as part of the conditions of the permit. Staff will review current ordinances and City codes and update as necessary.</i>
<i>Construction Site Implementation of Erosion and Sediment Control BMPs</i>	<i>Construction site operators must conform to NPDES Phase II permit requirements and local city requirements for construction site erosion control on sites 1 acre or larger. As part of the City's permit approval standards, erosion control BMPs must be implemented in accordance with the NPDES permit requirements, grading permit stipulations, and applicable city codes.</i>
<i>Waste Controls for Construction Site Operators</i>	<i>Construction site operators must confirm to NPDES Phase II permit requirements and the City's requirements for proper waste and material disposal, as defined in City codes, section 830. All waste and unused building materials must be properly disposed of off-site and prevented from being carried by runoff into a receiving channel or storm sewer system.</i>
<i>Procedures for Site Plan Review</i>	<i>Every applicant for a city building permit, subdivision approval, or grading permit that disturbs one acre or more is required to submit a project specific stormwater management plan (if applicable) and/or erosion control plan to the City for review and approval. Construction permits are also required to meet MPCA NPDES Phase II guidelines for erosion and sediment control and all applicable City ordinances and codes.</i>
<i>Procedures for Receiving Complaints</i>	<i>The City will provide a phone line and website links for the public to report potential construction site erosion control and waste disposal infractions.</i>
<i>Site Inspection and Enforcement</i>	<i>The City will provide training to its staff on proper erosion control, identification of problem areas, and the expectations of the Stormwater Pollution Prevention Plan (SWPPP) for</i>

construction site operations.

BMP categories to be implemented

Measurable goals and timeframes

Prioritize Inspections

The City will develop a process to determine the frequency for inspecting high priority inspection sites (e.g., near sensitive receiving waters, projects larger than 5 acres).

Documentation Procedures

Develop written procedures to track and archive all plan review and inspection documents within 12 months following the date permit coverage is extended.

- 4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

*Engineering Department for Review and Support
Cindy Larson, Residential Redevelopment Coordinator
Steve Kirchman, Chief Building Official*

E. MCM 5: Post-construction stormwater management

- 1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

The City reviews sites for post-construction stormwater management primarily to evaluate how private systems are connecting into the public system and ensuring that BMPs designed to manage stormwater are being constructed properly. For large sites typically 3 reviews are required by the City. As stated in the City of Edina's approved Comprehensive Water Resources Management Plan Section 3.2.2, policies 6 & 7 states "Section 3.2.2, policies 6 & 7 of the plan adopts the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District's rules by reference". The watersheds have a detailed review process and stormwater rules that require volume control, water quality, and water quantity.

- 2. Have you established written procedures for site plan reviews that you will conduct prior to the start of construction activity? Yes No

- 3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):

- a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance? Yes No
- b. All supporting documentation associated with mitigation projects that you authorize? Yes No
- c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))? Yes No
- d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of the agreement(s) and names of all responsible parties involved? Yes No

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

E.3.b-d., The City will develop written procedures for documentation of post-construction stormwater management for documentation of mitigation projects, payments, and legal mechanisms as described in the Permit (Part III.D.5.c.). Procedures will be in place within 12 months following the date permit coverage is extended.

- 4. List the categories of BMPs that address your post-construction stormwater management program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories

Measurable goals and timeframes

Encourage the use of structural and non-structural BMPs

*Structural
The City will review and revise (if necessary, during the plan review process) permanent BMP designs and criteria for post-construction stormwater management associated with new development and redevelopment projects of one acre or more. The City will also consider the implementation of low impact*

	<p>development practices if prudent and feasible. The City will annually review and revise (if necessary) the current policies, requirements, and Best Management Practices specific to structural BMP's.</p> <p><u>Non-Structural</u> The City may also improve the condition of parks, wetlands, and watersheds when the opportunity arises. Wetland restorations, native plantings, bank stabilization, detention ponds, and other best management construction projects will continue to be actively pursued by the City when the opportunity arises.</p>
<u>Post-Construction Regulatory Mechanism</u>	<p>The City will implement the requirements of the Comprehensive Water Resource Management Plan (CWRMP), along with applicable City ordinances to minimize the negative impacts stormwater runoff may have on water quality within the City.</p> <p>The City will revise this BMP to include establishing a partnership with the Nine Mile Creek Watershed District and Minnehaha Creek Watershed District for reviewing and permitting of projects 1 acre or greater to require post-construction stormwater management. These post-construction stormwater requirements will include the provisions of the MS4 permit.</p>
<u>Long Term Operation and Maintenance of BMPs</u>	<p>City staff will inspect post-construction BMP's then evaluate inspection records for determining the corrective maintenance actions (if necessary) for the long-term operation of all stormwater management facilities owned by the City. Corrective actions and routine maintenance of all stormwater management facilities will be guided by the Comprehensive Water Resource Management Plan, City of Edina's standard specifications and design requirements, and City staff.</p> <p>This will BMP will be revised for the new permit term to include requirements for the long-term operation and maintenance of structural pollution control devices constructed as a part of private systems.</p>
BMP categories to be implemented	Measurable goals and timeframes
<u>Revise Written Procedures for Site Plan Review</u>	<p>Within 12 months of extension of permit coverage, the City will revise the existing site plan review procedures. These procedures may include a site plan review checklist, and form letter, etc.</p>
<u>Permit Tracking System</u>	<p>Within 12 month of extension of permit coverage the City will update their tracking system to include information to assist with tracking construction site inspections, agreements, complaints, and correspondence for reports of non-compliance.</p>
<u>BMP Guidance Document</u>	<p>Develop BMP Construction Guidance document for developers and contractors within 12 months of permit coverage extension.</p>

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Laura Adler, Water Resources Coordinator

F. MCM 6: Pollution prevention/good housekeeping for municipal operations

1. The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

The City currently inspects its structural pollution control devices on an annual basis and inspects all of its outfalls, sediment basins and ponds every 5 years. Inspection information is entered into "City Works" their asset management program and is rated 1-4 to assist with prioritizing maintenance. The City inspects stockpiles, storage and material

handling areas at the maintenance yard for potential discharges and maintenance of BMPs as a part of their routine activities. The City is evaluating ways to reduce the use of road salt for winter road maintenance activities to reduce chlorides entering water resources and the City sweeps their streets twice annually (Spring and Fall).

2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)? Yes No
3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:
4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
<i>Municipal Operations, Maintenance, and Training Program</i>	<p><i>The City will implement the Stormwater Management and Maintenance programs identified within the City's Comprehensive Water Resources Management Plan (CWRMP) and as specified in the City's SWPPP.</i></p> <p><i>The City will also provide training materials and workshops to City staff to help reduce stormwater pollution caused from park maintenance, fleet and building maintenance, new construction and land disturbances, outfall inspections, and storm sewer system maintenance.</i></p>
<i>Street Sweeping</i>	<p><i>The City will brush or vacuum sweep streets a minimum of twice annually in an effort to reduce the amount of sediment, trash and organic material from reaching the storm sewer system and water resources.</i></p>
<i>Annual Inspection of All Structural Pollution Control Devices</i>	<p><i>The City Public Works Department will inspect all identified structural pollution control devices on City property and prescribe a maintenance schedule as necessary. Newly constructed and rebuilt structural pollution control devices will be added to the storm sewer map.</i></p> <p><i>This BMP will be revised to identify that inspections need to be completed at least annually unless a different schedule is justified based on maintenance needs.</i></p>
<i>Inspection of Outfalls and Sediment Basins/Ponds</i>	<p><i>The City will inspect all mapped outfalls, sediment basins and ponds within the City's storm sewer system. The results of these inspections will be compiled in a report which will include sediment levels, watershed information and recommended maintenance and maintenance schedules.</i></p>
<i>Annual Inspection of All Exposed Stockpile, Storage and Material Handling Areas</i>	<p><i>City staff will annually locate and inspect all exposed stockpiles and storage/material handling areas located on City owned properties. All existing onsite BMP's will be inspected for conformance to NPDES Phase II permit requirements. Any identified erosion control issues will be corrected and documented per NPDES Phase II standards.</i></p> <p><i>This BMP will be updated to increase the inspection frequency to at least quarterly.</i></p>
<i>System Maintenance</i>	<p><i>The City will determine whether repair, replacement, or maintenance measures are necessary from evaluating inspection reports and other pertinent information. All corrective maintenance, repair, and/or replacement measures will be documented and recorded by the City's public works staff.</i></p>

	<i>This BMP will be revised to incorporate the City's current system for prioritizing maintenance.</i>
<i>Documentation Procedures</i>	<i>The Public Works Director will retain all records of inspection, maintenance, and corrective actions of the City's storm water system. Records will be available, by request, to the public upon approval by the Public Works Director.</i>
<i>Evaluation of Inspection Frequency</i>	<i>The City will retain records of inspection results and any maintenance performed or recommended. After 2 years of inspections, if patterns of maintenance become apparent, the frequency of inspections may be adjusted at the discretion of the Public Works Director given the following conditions are fulfilled: 1. If maintenance or sediment removal is required as a result of each of the first two annual inspections, the frequency of inspection shall be increased to at least two (2) times annually or more frequently as needed to prevent carry-over or washout of pollutants from structures and maximize pollutant removal. If maintenance or sediment removal is not required as a result of both of the first two (2) annual inspections, the frequency may be reduced to once every two (2) years.</i>
<i>Landscaping and Lawn Care Practices Review</i>	<i>The City will annually review and, if necessary, adjust its current practices in the use of fertilizer, pesticide and herbicide application, mowing and discharge operations, grass clipping collection, mulching and composting.</i>
<i>Road Salt Application Review</i>	<i>The City will review the practices and policies of road salt applications such as alternative products, calibration of equipment, inspection of vehicles and staff training.</i>
<i>Backwash Recycle Tanks</i>	<i>The City constructed backwash recycle tanks at water treatment plants #2, #3, and #4. Backwash water recycle tanks will collect the backwash water, which now flows to the storm water system. The backwash water will stay in the tanks until the suspended solids settle out, then will be retreated and put into the potable water supply. The settled solids will be discharged to the sanitary sewer system. Each plant will have an emergency overflow point in the recycling tanks, which will enter the same storm sewer system to which each plant currently discharges. The overflow points will be locked controlled discharges.</i>
BMP categories to be implemented	Measurable goals and timeframes
<i>Develop Spill Prevention & Control Plans for Municipal Facilities</i>	<i>Develop plans describing spill prevention and control procedures by the end of Year 1. Conduct annual spill prevention and response training sessions to all municipal employees. Distribute education materials, i.e. posters and pamphlets, to each municipal facility by the end of year 2.</i>
<i>Facility Inventory</i>	<i>The City has created a map of all identified facilities and along with BMPs being used to control pollutants. Where BMPs are not in place identify BMPs that could be implemented along with a schedule for implementation.</i>
<i>Pond Assessment Procedures & Schedule</i>	<i>In year 1, develop procedures for determining TSS and TP treatment effectiveness of city owned ponds used for treatment of stormwater. Implement schedule in year 2-5.</i>

5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)? Yes No
- a. If **no**, continue to 6.
- b. If **yes**, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm>. Is a map including the following items available for your MS4:
- 1) Wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330? Yes No
- 2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health under the federal Yes No

- c. Have you developed and implemented BMPs to protect any of the above drinking water sources? Yes No
6. Have you developed procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)? Yes No
7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)-(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas? Yes No
8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:
- a. Addresses the importance of protecting water quality? Yes No
 - b. Covers the requirements of the permit relevant to the duties of the employee? Yes No
 - c. Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements? Yes No
9. Do you keep documentation of inspections, maintenance, and training as required by the Permit (Part III.D.6.h.(1)-(5))? Yes No

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

F.5.b.2): The City of Edina does not have any known surface water intakes.

F.6.: The City completed a non-degradation evaluation during the previous permit in 2007. The City will use this information to develop a procedure for assessing ponds to determine TSS and TP effectiveness as described in the Permit (Part III.D.6.d). A schedule will be implemented in years 2 thru 5.

F.7.: The City will develop written procedures for inspection of structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas as described in the Permit (Part III.D.6.f.). Procedures will be in place within 12 months following the date permit coverage is extended.

F.8.: The City will develop and implement a stormwater management training program to commensurate with each employees job duties as described in the Permit (Part III.D.6.g.). Procedures will be in place within 12 months following the date permit coverage is extended.

F.9: The City will develop written procedures to document inspections, mainenance, and training as described in the Permit (Part III.D.6.h.). Procedures will be in place within 12 months following the date permit coverage is extended.

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Brian Olson, Public Works Director

VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date of the Permit? Yes No
1. If **no**, continue to section VII.
 2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere_TMDL*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)? Yes No
1. If **no**, this section requires no further information.
 2. If **yes**, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus Treatment Systems Form supplement to this document, with the following naming

convention: *MS4NameHere_TreatmentSystem*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VIII. Add any Additional Comments to Describe Your Program



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

April 3, 2014

Laura Adler
City of Edina
7450 Metro Blvd.
Edina, MN 55439

RE: Issuance of Coverage under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit MNR040000 for Municipal Separate Storm Sewer Systems for City of Edina MS4

Dear Ms. Adler:

In accordance with Minn. R. 7001.0140, the Commissioner of the Minnesota Pollution Control Agency (MPCA) has made a final determination to issue coverage under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit MNR040000 for Municipal Separate Storm Sewer Systems (MS4 General Permit) to the City of Edina, effective April 3, 2014. Please find enclosed a copy of the above referenced MS4 General Permit.

The MPCA's final decision to issue permit coverage is based on the following:

- MPCA staff has reviewed your MS4 General Permit application and Stormwater Pollution Prevention Program (SWPPP) Document.
- Public notice and opportunity for comment on your MS4 General Permit application and SWPPP Document has been provided, and no comments were received.

As you know, it is the responsibility of the MS4 owner and/or operator to comply with the requirements of the MS4 General Permit and your SWPPP Document. This issuance of coverage does not preclude the MPCA from following up with an inspection or audit to verify compliance with the MS4 General Permit and SWPPP Document. Also, be aware that as a condition of recordkeeping, Part IV.C.3. of the MS4 General Permit requires that the permittee retain their SWPPP Document and all records pertinent to it for at least three (3) years beyond the term of the MS4 General Permit.

In addition, for an MS4 that was covered under the previous MS4 General Permit (issuance date June 1, 2006), coverage under that permit is terminated on the coverage date as specified above. An MS4 covered under the new MS4 General Permit is required to report on activities that were required or committed to under the previous permit.

City of Edina
Page 2
April 3, 2014

Finally, the MPCA thanks you for your cooperation in the permitting process. Please retain this letter as documentation of your MS4 General Permit coverage under the NPDES/SDS Permit MNR040000.

Please contact MS4 team member Scott J. Fox at 651-757-2368 with any questions.

Sincerely,

Duane Duncanson

This document has been electronically signed.

Duane Duncanson
Supervisor, Municipal Compliance Unit I
St. Paul Office
Municipal Division

cc: City of Edina file

Memorandum

To: *Laura Adler, City of Edina*

From: *Jesse Carlson*

Date: *12/9/13*

Re: *MS4 Program – Gaps Analysis and Program Evaluation
WSB Project No. 2092-650*

Overview

To prepare for revising the City of Edina's MS4 Program to meet the new permit requirements, the City of Edina has authorized WSB & Associates, Inc. (WSB) to complete a program assessment of their current program compared to the requirements of the revised MS4 permit. The assessment was completed during the week of 9/30/12 to 10/4/13.

The goal of the MS4 program assessment is to evaluate the City's SWPPP and supporting documents. This assessment consisted of an evaluation of the SWPPP that was created in 2003 (updated in 2006) along with the subsequent report forms that were submitted to the MPCA annually, educational information, and City ordinances. Additionally, onsite interviews occurred with municipal employees. These employees are responsible for implementing various aspects of the MS4 program. The following summarizes the results of the program assessment.

Overall Assessment of Program

The program assessment process revealed that the City has a good program with employees that care about addressing the issues of concern and complying with the rules within the MS4 permit. The City should be commended regarding their approach to managing the program. Some program specifics include:

- Initiative towards reducing their application of road salts
- Variety of methods used for distributing educational materials
- Management of erosion and sediment control associated with redevelopment
- Integration of curtain sprayer's for applying herbicides at the golf course
- Using City Works to document maintenance activities

The following sections will address program management along with recommendations specific to those areas. Several areas of the permit were addressed during employee interviews.

Program Management

Areas of Program Compliance

- Using the Executive Leadership Team (ELT) to assist with coordinating the education program.
- Using City Works to track maintenance activities.

Areas for Program Development

- Updating the City of Edina's MS4 program organizational chart to clearly communicate to each of the departments what aspects of the MS4 program that they are responsible for assisting in implementation.
- Develop an internal reporting and assessment procedure for tracking the activities associated with implementation of the MS4 Program. To accomplish this City should explore expanding their use of City Works. The revised MS4 permit specifies that City's need to take a more active role in documenting how they are fulfilling their MS4 obligations.

Public Education and Outreach:

Areas of Program Compliance

- The City has uses a number of methods for distributing education information and is encouraged to continue their use of these distribution methods for education the public. The distribution methods include:
 - About town newsletter
 - Announcement made in the City Extra email notification system
 - Announcement made using social media
 - Using "Hometown Heroes" to help celebrate people who take pride in the community
 - Video messages either posted on-line or aired on the cable access channel
 - Website
 - Newcomer packet
 - Public works pipeline

Areas for Program Development

- Update the website to include an interactive map that identifies priority watersheds. The map would include recommendations for Best Management Practices (BMPs) that could be implemented in these high priority watersheds.
- Sponsor neighborhood events that have a stormwater educational theme in partnership with either the Nine Mile Creek Watershed District or Minnehaha Creek Watershed District.
- Create new or update communications plan to include:
 - Established target audiences: industrial, commercial, residential, and areas within key watersheds.
 - Sponsor additional stormwater related activities.
 - Expand on the current use of social media.
 - Prepare bilingual education and outreach programs such as brochures on illicit discharges.

- Consider the installation of kiosks at City parks or lakes. These kiosks could include a watershed map, lake descriptions, water quality trends, common fish, and tips to help improve water quality.

Illicit Discharge Detection and Elimination

Areas of Program Compliance

- Spill response procedures. Fire department is trained in responding to spills.
- Stormwater system mapping. System map provides the locations of all storm sewer and water bodies that are part of the City owned system.
- Public works actively looking for illicit discharges during their routine activities.

Areas for Program Development

- Develop standard operating procedures for implementation of the IDDE program. This will include a map with prioritization areas, inspection procedures, methods for tracking illicit discharges, and testing protocols. The Standard Operating Procedures should also include a clear definition for what is identified as an illicit discharge. Illicit discharges may include:
 - Any discharge to the MS4 storm sewer that is not stormwater including leaking sanitary sewers or water mains, illegal sewage connections, illegal floor drain connections, seasonal draining of swimming pools (pools are recommended to be dechlorinated prior to discharge), break-out from failing septic systems, discharge of vehicle/equipment washing into the storm sewer, spills, and dumping.
- Develop Enforcement Response Procedures (ERPs)
- Adoption of an ordinance that effectively prohibits illicit discharges. The ordinance should identify what constitutes as an illicit discharge, methods for eliminating illicit discharges, enforcement provisions, and allowances for being able to inspect private systems.
- Develop an annual employee training program to ensure that all employees are familiar with the Standard Operating Procedures. It is suggested that this include public works staff, fire chief, police, or anyone else that may be responsible for identifying illicit discharges so they can be referred to the appropriate individual at the City for follow-up and eventual elimination. The employee training program should include the following components:
 - Common sources of illicit discharges
 - Key outfall indicators
 - Sampling techniques for dry weather flows, if illicit discharge are suspected
 - Using fingerprinting to determine the source of illicit discharge
 - Documentation procedures
- Documentation procedures for receiving and responding to reports of non-compliance.

Construction Site Erosion and Sediment Control

Areas of Program Compliance

- Established plan review procedures for sites 1 acre or greater and for sites less than 1 acre. For large site the City will complete at least 3 reviews at the 30, 60, and 90% plan stages.
- Ability to issue stop work orders for non-compliance.
- The City has a process for completing site inspections depending on the type of construction, but it is not formalized into a SOP.

Areas of Program Development

- Develop SOPs for implementation of the erosion and sediment control program. The SOPs will formalize the process the City uses to conduct plan review. It may include revising existing checklists, procedures for responding to reports of non-compliance, and enforcement mechanisms.
- Develop a guidance document to provide to permittees. This guidance document would include the City's standard details for erosion and sediment control and typical site plans for erosion and sediment control for single family lots, commercial development, and residential development.
- Revise the current City code to provide one comprehensive erosion and sediment control ordinance that meets the requirements of the MPCA Construction General Permit. The ordinance will include requirements for erosion control, sediment control, requirements for owners to complete site inspections, and enforcement mechanisms.
- Establishment of a partnership with the Nine Mile Creek Watershed District and Minnehaha Creek Watershed District for implementation of the erosion and sediment control requirements. The City would take an active role for sites less than 1 acre, but for sites 1 acre or greater may rely on the watershed to enforce their permit requirements
- Formalize the current process for completing site inspection in SOPs. The SOPs will identify priority areas for completing inspections, frequency at which the City inspects construction sites, and individuals responsible for performing site inspections. The person responsible for inspections should have training that commensurate with their job duties. The training should be conducted both externally, but more importantly internally to promote consistency among all inspectors.
- Integrate the current database used to track list of active construction sites, inspections performed, and compliance issues in the "City Works" management system.
- Establish a frequency for how often construction sites are inspected. The prioritization should include a consideration for site size, adjacency to water bodies, etc.

Post-Construction Stormwater Management

Areas of Program Compliance

- Established plan review procedures for sites 1 acre or greater and for sites less than 1 acre. For large site the City will complete at least 3 reviews at the 30, 60, and 90% plan stages.
- Comprehensive plan requires that all sites meet the requirements of the Nine Mile Creek Watershed District and Minnehaha Creek Watershed District. The watersheds have requirements to control runoff volumes for all site that are 1 acre or greater.
- Approved Comprehensive Water Resources Management Plan.

Areas of Program Development

- Develop SOPs for Post-Construction Stormwater Management. The SOPs will formalize the process the City uses to conduct plan review. It may include revising existing plan review checklists, etc.
- Develop a guidance document to provide to permittees that summarizes the requirements for post-construction stormwater management as well as storm sewer system design requirements. BMP design information can be found in the Minnesota Stormwater Manual.
- Revise the current City code to establish requirements for post-construction stormwater management. This may include referring to the watersheds for implementing their requirements for sites that are 1 acre or greater.
- Establishment of a partnership with the Nine Mile Creek Watershed District and Minnehaha Creek Watershed District for implementation of the post-construction stormwater management requirements. The City would rely on the watersheds to enforce their requirements for post-construction stormwater management on site that are 1 acre or greater.
- Develop a regulatory mechanism to ensure the long-term operation and maintenance and private system installed. The watersheds already require maintenance agreements for BMPs that are installed. As a part of establishing a partnership with the watershed this will identify the process for how the City and watershed would enforce this document. The City may inspect the system, but rely on the watershed to enforce their maintenance agreement.
- Use City works to track the number of private system installed.

Good Housekeeping Practices with Municipal Operations

Areas of Program Compliance

- Use of deicing alternative to reduce the usage of road salts.
- Use of City Works to track the cleaning and maintenance of City owned BMPs.
- Existing program (non-degradation study) in-place to determine the TSS and TP treatment effectiveness of all City owned ponds.
- Current system to inspect and rank the storm sewer system inspections. Items inspected are ranked 1-4. Items ranked as a 1 receive immediate attention.

- Disposal procedures for handling of street sweepings and cleaning out of structural pollution control devices.

Areas of Program Development

- Develop and formalize SOPs for pollution prevention/good housekeeping practices for municipal operations. The SOPs will be required to include information on materials disposal, stockpile management, vehicle fueling and emergency response, pond dredging and sediment disposal, street sweeping, sump catch basin cleaning and disposal, park and open space maintenance, right-of-way maintenance, and deicing operations.
- Develop SOPs for stormwater facility inspections/maintenance.
- Operation and maintenance program must include annual employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, vehicle/fleet equipment washing, new construction and land disturbances, and stormwater system maintenance. This will be address as a part of the Stormwater 101 training that will be completed by the City.
- All ponds within the City were evaluated as a part of non-degradation study. This information should be used to prioritize system inspections and verify the pollutant removal effectiveness for TSS and TP.
- Review and update the the stormwater inspection and maintenance forms to include questions pertaining to the identification of Illicit Discharges.
- City prepared construction documents shall include the following:
 - SWPPP designer contact information and qualifications
 - Identification of areas where erosion could be problematic and proposed BMPs
 - Include language to properly how to address dewatering of sediment laden water
 - The SWPPP shall include a Statement of Estimated Quantities (SEQ)
 - Include provision in the SWPPP for concrete washout management
- Complete an inventory of all City owned properties to assess their potential for the discharge of pollutants. If potential pollutants are identified the inventory shall include an identification of BMPs that must be integrated to minimize the discharge of pollutants.
- Quarterly inspections of stockpile/storage and material handling areas as identified in the Facility Inventory.

TMDL Wasteload Allocation Excel Spreadsheet PART II.D.6.a.-e.

Copy and paste from the Master List MS4 TMDL Spreadsheet for your MS4 to the space below.

Attach this completed form with your SWPPP Document at the time of submittal. At a **minimum**, provide all of the information "*" items (TMDL Project Name, Type of WLA, Numeric WLA, Unit, Flow Condition, and Pollutant of Concern).

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
City of Edina	MS400016	Ninemile Creek: Impaired Biota, Turbidity, & Chloride TMDL	07020012-518	Categorical	5.164	tons/day	62%	NA	Nine Mile Creek	Chloride	11/29/2010

Compliance Schedule PART II.D.6.f.-g.

Is your MS4 currently meeting its WLA for any approved TMDLs?

If **NO** (Complete Table 1 - Strategies for continued BMP implementation beyond the term of this permit, and Table 2 below [Table 1](#))

Go to:

Go to:

Go to:

If **YES** (Provide the following information below)

If **YES**, indicate the WLA(s) (may be grouped by TMDL Project) you believe are reasonably being met. For each WLA, list the implemented BMPs and provide a narrative strategy for the long-term continuation of meeting each WLA. **PART II.D.6.g.(1)-(2)**

Table 1

Fill in the following table with your Interim Milestones, BMP IDs, and Implementation Dates. Replace "TMDL Project Name & Pollutant" Columns with each TMDL Project Name and the corresponding pollutant. Then put an "X" in the boxes for the TMDL that corresponds with each BMP. **PART II.D.6.f.(1)-(2)**

NOTE:

It is recommended to assign each Interim Milestone (BMP) a BMP ID. You will be required to report on the status of each Interim Milestone and include a BMP ID for all structural BMPs as part of the MS4 Annual Report (see Part III.E.), so including those ID numbers at the time of application may be useful in tracking implementation efforts. If a pond that will be included in the pond inventory (Part III.C.2.) is to be applied toward a WLA, use the same ID for both the pond inventory and TMDL tracking. Non-structural BMPs are not required to have an ID, but it may be useful to assign it an ID for internal MS4 recordkeeping.

MPCA recommends the Implementation Dates align with the submittal of MS4 Annual Reports. Dates selected may not reflect the actual date a BMP is implemented, but shall indicate a BMP will be implemented on that date or before for that reporting year.

Interim Milestone (Best Management Practice)	BMP ID	Implementation Date	Nearby Creek: Impaired Biot, Turbidity, & Chloride TMDL
Installation of automated trash system	NMC-CL-001	12/3/2013	X
GPS tracking of application sites	NMC-CL-002	2011	X
Establish prioritized plow routes based on sensitivity of receiving waters	NMC-CL-003	6/20/2014	X
Partner with the Nine Mile Creek Watershed District regarding a public education campaign on the proper use of deicing materials on commercial and private properties	NMC-CL-004	6/20/2014	X
Annually evaluate the potential to decrease salt usage, which may include equipment upgrades and staff training	NMC-CL-005	6/20/2014	X

Strategies for continued BMP implementation beyond the term of this permit. **PART II.D.6.f.(3)**

The City is implementing a number of new equipment upgrades that should result in a reduction of road salts used for deicing. The City will evaluate the effectiveness of implementing these

Table 2

Target dates the applicable WLA(s) will be achieved. **PART II.D.6.f.(4)**

TMDL Project	Target Date to Achieve WLA
Nearby Creek: Impaired Biot, Turbidity, & Chloride TMDL	2015

Section II.
Stormwater Pollution Prevention Program

STORMWATER POLLUTION PREVENTION PROGRAM

STORMWATER POLLUTION PREVENTION PROGRAM

For:

City of Edina, Minnesota

May 14, 2014

Prepared By:

**WSB & Associates, Inc.
701 Xenia Avenue S., Suite 300
Minneapolis, MN 55416
(763) 541-4800
(763) 541-1700 (Fax)**

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PART 1: GENERAL INFORMATION

1 GENERAL INFORMATION

1.1 INTRODUCTION

This document is designed to explain, describe, and outline responsibilities for the City of Edina's Stormwater Pollution Prevention Program (SWPPP). The National Pollutant Discharge Elimination System (NPDES) program requires the City of Edina to measure and report on this program's effectiveness on an annual basis. This document is intended to summarize the program components and illustrate their benefit to the surrounding City resources. Unlike defined permit requirements, this program identifies activities that are intended to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) standard.

The City's Municipal Separate Storm Sewer System (MS4) program is managed by various departments. Because the goal of maintaining and restoring water quality remains a vital function for the City as a whole unit, it is imperative the various departments of the City work together to implement permit requirements. The City has existing programs that already accomplish MS4 goals. In areas where the City is not meeting these goals, it will expand/modify existing programs. The goal for this MS4 permit is to draft each implementation activity to be clear, specific, and measurable. Historically, effective MS4 programs include specific deadlines for compliance, incorporate clear performance standards, and include measurable goals with quantifiable targets for implementation when possible.

1.2 REGULATORY OVERVIEW

In 1987, Congress amended the Clean Water Act to require a two-phase implementation of a comprehensive national program for addressing stormwater discharges. This in turn created the Municipal Separate Storm Sewer System (MS4) program. The Phase I program regulated large cities with populations over 100,000 and the Phase II program regulates small MS4s. The City of Edina has been regulated by the MS4 program since 2003 and is considered a Phase II community. The MS4 program is defined as a "conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains owned or operated by a state, city, town, borough, county, parish, district, association, or other public body designed or used for collecting or conveying stormwater (40 CFR 122.2)".

MS4 systems can be linear or more complex open piped, manmade, natural, or a combination of these conveyances. In this document, the term MS4 can reference the conveyance system or it may reference the entity which operates the system.

The overall design strategy for the City of Edina's MS4 program is oriented towards a clear understanding of the MEP standard. MEP has not been defined by EPA, but is intended to be flexible to allow the development of MS4 implementation activities that are achievable by each MS4 permittee. The overall goal of the MS4 program remains to restore or maintain the chemical, physical, and biological integrity of waters of the state through management and treatment of urban stormwater runoff.

PART 1: GENERAL INFORMATION

According to the 1996 National Water Quality Inventory, stormwater runoff is a leading source of water pollution. Stormwater runoff can harm surface waters such as rivers, lakes, and streams which in turn cause or contribute to water quality standards being exceeded.

Stormwater runoff can change natural hydrologic patterns, accelerate stream flows, destroy aquatic habitats, and elevate pollutant concentrations and loadings. Development substantially increases impervious surfaces thereby increasing runoff from city streets, driveways, parking lots, and sidewalks, on which pollutants from human activities settle.

Common pollutants in runoff include pesticides, fertilizers, oils, metals, pathogens, salt, sediment, litter, and other debris. These pollutants are transported via stormwater and discharged, untreated, to water resources through storm sewer systems (Source: Minnesota Pollution Control Agency 2013).

1.3 MS4 RESPONSIBILITIES

Most principles of the MS4 program are based on the fact that stormwater runoff, either from rainfall or snowmelt, is collected, carried away, and discharged to local waterways typically without any cleansing or treatment to remove pollutants.

Runoff flows over paved streets, sidewalks, parking lots, building rooftops, and other impervious surfaces. Stormwater runoff also drains off residential lawns, recreation fields, and golf courses. Along the way, this stormwater picks up common pollutants such as motor oil and antifreeze, trash and street litter, pet waste, fertilizers and pesticides, detergents and chemicals, and sediments.

The potential to introduce unwanted pollutants into our lakes, streams, ponds, and wetlands is prevalent. More importantly, if left unchecked, these pollutants can have detrimental impacts on overall water quality within the City of Edina. One of the main goals of the SWPPP is to focus attention on Pollutants of Concern (POC) in an effort to reduce or eliminate their prevalence and subsequent impact on local water bodies.

Raising public awareness to the problems associated with high concentrations of phosphorus in our City waters remains critical to reversing this trend, especially considering phosphorus is naturally plentiful in most soils and does not need to be added to achieve lush, green growth. The battle against pathogenic contamination of stormwater, another POC, is being spearheaded by improved management and monitoring of the municipal sanitary and storm sewer systems. The City has implemented an Illicit Discharge Detection and Elimination (IDDE) Program designed to identify, repair, and prevent problems associated with stormwater pollution.

To manage and monitor the actual quality of stormwater being discharged from storm pipes throughout Edina, every outfall under the City's jurisdiction has been inventoried and vital characteristics recorded. Besides identifying the outfalls, the map helps to define drainage areas and assess other factors that could impact water quality. Additionally, these outfalls are routinely inspected by a qualified field technician to ensure the stormwater being discharged does not contain non-stormwater related discharges.

PART 1: GENERAL INFORMATION

1.4 PARTNERSHIPS

Coordination with external government agencies and internal municipal departments is encouraged by all regulatory authorities to most effectively implement the MS4 permit. The City recognizes the benefits of coordination, and uses coordination in numerous ways. Although the City remains the “lead-authority” for their permit implementation, their goal remains to work with other entities whenever possible to increase public involvement and overall water quality goals. The City is evaluating the creation of formal partnerships with the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District. These partnerships may include the following program elements:

- Public education
- Construction site erosion and sediment control
- Post-construction stormwater management

The goal is to develop a cohesive program that will educate the public, municipal staff, and local officials about the impacts of stormwater discharges on water bodies. Furthermore, the educational program will provide deliberate steps that the general public can take to reduce pollutants in stormwater runoff.

The City’s erosion and sediment control program is focused primarily around the tear down and rebuild of single family and twin family dwelling units due to the large volume of sites that are being reconstructed. This program also includes larger activities that involve 1 acre or greater of disturbance, but to a lesser degree. The City and the Watershed both require permits to address erosion and sediment control. The City will discuss partnerships with the watersheds where the watersheds will assist in completing inspections on sites that require more routine inspections due to their size and sensitivity to receiving waters.

The City’s approved Comprehensive Water Resources Management Plan (CWRMP) Section 3.2.2, Policies 6 and 7 adopt the watershed rules by reference. The watershed rules require that applicants reduce the runoff volume from sites that are 1 acre or greater in size and for NMCWD require the reduction in the runoff volume for the following additional scenarios:

- Within 300 feet of the centerline of Nine Mile Creek,
- Within 500 feet of the ordinary high water level of any other public water or protected wetland.
- Below the 100-year flood elevation.

If the applicants are unable to provide volume control, there are substitute sequencing alternatives for compliance specified. These rules overall meet the intent of the MS4 general permit for volume control, TSS, and TP removal. The City will discuss establishing partnerships with the watersheds where the City requires applicants to meet the requirements of the watershed rules.

PART 1: GENERAL INFORMATION

The MS4 permit requires that municipalities establish requirements for long-term operation and maintenance of BMPs for both public and private systems. For privately-owned sites, the watersheds require the establishment of maintenance agreements or easements that are recorded on the deed of the property. The City may assist with inspecting these private facilities, but will rely on the watershed to enforce their maintenance agreements. The City will include these requirements as a part of any partnerships that are established.

1.5 WATER RESOURCES

The City is an urban city that was largely developed between 1940 and 1970. Development occurred prior to the period when significant stormwater controls were required. The City will integrate stormwater controls to the MEP during redevelopment, but will also consider identifying projects to improve water quality regionally. The City currently sweeps the streets twice per year and will evaluate sweeping streets in high priority areas more often.

Lakes

A number of lakes are identified throughout the City. The lakes are primarily shallow basins that provide habitat benefits and opportunities for fishing. The MnDNR has periodically performed fish stocking in Lake Cornelia, Arrowhead Lake, Centennial Lake, and Indianhead Lake.

Creeks

The City has two major creeks running through it. Minnehaha Creek runs from west to east across the northern part of the city. Nine Mile Creek runs from west to east across the southern part of the City. Water is conveyed to the creeks via the City's storm sewer system and will include any pollutants carried with it.

Wetlands

The City completed the Minnesota Routine Assessment Method for Evaluating Wetland Functions (MnRAM) in 1999. In 2003, the Minnehaha Creek completed a MnRAM for the portion of the City that falls within their district. For the purposes of planning, the City adopted the MCWD MnRAM completed in 2003 and the City MnRAM assessment that was completed in 1999 for the remainder of the City. The MnRAM assessment allows the City to make important decisions for how those wetlands are managed and how changes in land use may impact their overall quality.

1.6 PROGRAM ASSESSMENT

From September 30 through October 4, 2013 an evaluation was completed regarding the City's MS4 program. The program assessment was conducted by WSB & Associates, Inc. and was intended to evaluate how the City is implementing their program for compliance with the previous version of the MS4 permit that was effective from March 2006 and expired in March

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2011. The assessment also provides recommendations for revision along with identifying how the program should be modified to meet the new permit.

The program assessment process revealed that the City has a good program with employees that care about addressing the issues of concern and complying with the rules within the MS4 permit. The City should be commended regarding their approach to managing the program. Some program specifics include:

- Initiative towards reducing their application of road salts
- Variety of methods used for distributing educational materials
- Management of erosion and sediment control associated with redevelopment
- Integration of curtain sprayers for applying herbicides
- Use of City Works asset management software to document maintenance activities

1.7 DEFINITIONS

Best Management Practices or BMP –BMP includes treatment requirements and operating procedures and practices to control pollutant in stormwater runoff.

CFR – Code of Federal Regulations

Commissioner - means the Commissioner of the Minnesota Pollution control Agency or the Commissioner’s designee.

Maximum Extent Practicable or MEP – Is the statutory standard that establishes the level of pollutant reductions that an Owner or Operator of regulated MS4 must achieve.

MCM – Minimum Control Measure

MPCA – Minnesota Pollution Control Agency

Municipal Separate Storm Sewer System or MS4 – means a publicly owned and operated conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)

NPDES – National Pollutant Discharge Elimination System

Operator – means the person with primary operational control and legal responsibility for the municipal separate storm sewer system.

Outfall – means the point where a MS4 discharges from a pipe, ditch, or other discrete conveyance to waters of the state, or other municipal separate storm sewer system. It does not include diffuse runoff or conveyances which connect segments of the same stream or other water systems.

Owner – means the person that owns the municipal separate storm sewer system.

Person – means the state or any agency or institution thereof as well as any municipality, government subdivision, public or private corporation, individual, partnership, or other entity including, but not limited to, association, commission, or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, public or private corporation, or other entity.

Reduce – means reduce to the “MEP” unless otherwise defined in the context in which it is used.

SOP – Standard Operating Procedure

Stormwater – means stormwater runoff, snowmelt runoff, surface runoff, and drainage.

Structural Pollution Control Device – means any stationary, permanent facility, or apparatus that is intended to manage and/or treat stormwater runoff.

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SWPPP – Stormwater Pollution Prevention Program

Total Maximum Daily Load (TMDL) – is the process established by the USEPA for the allocation of pollutant loads, including stormwater, to a particular water body or reach of a waterbody.

Wetlands – are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state.

WLA – means Waste Load Allocations

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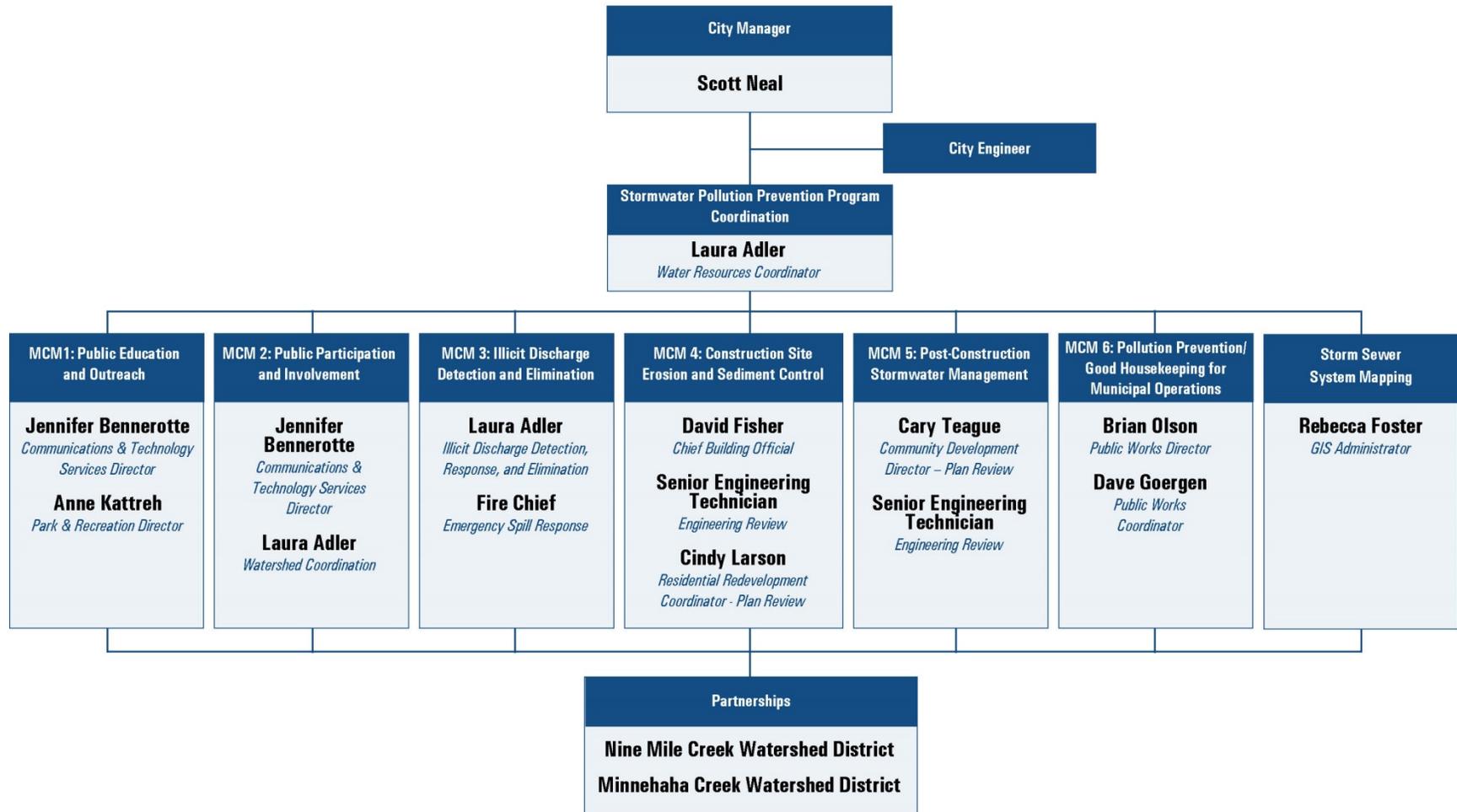
2 STORMWATER MANAGEMENT PROGRAM

2.1 DETAILS

This section includes information regarding the City of Edina's SWPPP. It describes the activities that the City will take to reduce pollutants in stormwater runoff associated with each of the Minimum Control Measures (MCMs) established in the permit.

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2.2 ORGANIZATIONAL STRUCTURE



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2.3 MINIMUM CONTROL MEASURE GENERAL REQUIREMENTS

As noted earlier, the City administers a comprehensive SWPPP designed to address a wide array of stormwater pollution issues and concerns. Six MCMs, intended to reduce non-point sources of stormwater pollution through education, regulation, and advanced management practices form the core of this SWPPP. The following is a brief description of each MCM including objectives as well as steps that have been taken to meet these goals:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

For each of these MCMs, the City will select and implement activities and measurable goals that comprehensively address the specific stormwater issues they have historically experienced. As demonstrated in the City's organizational structure the City meets the requirements of the MS4 permit through the efforts of multiple departments, programs, and operations.

Measurable Goals

The Phase II rule describes measurable goals as design objectives or goals that quantify the progress of program implementation and the performance of the BMPs. These are objective markers or milestones that the City will use to track the progress and effectiveness of their activities in reducing pollutants to the MEP. The EPA recommends that the City develop a program with a variety of short- and long-term goals. Measurable goals can be designed using several different approaches; the following depict some of the common approaches used within the City's MS4 program.

1. Tracking implementation over time. Where an activity is continually implemented over the permit term, a measurable goal can be developed to track how often or where this BMP is implemented.
2. Measuring progress while implementing the activity. Some activities are developed over time and tracked so the City can demonstrate the measurable goal has been fulfilled.
3. Establishing numerical measurable goals such as the number of wet detention basins in place or the number of people changing their behavior due to the receipt of educational materials is an effective approach for meeting program compliance. These measurable goals are satisfied by simply tracking the total number of activities implemented.
4. Tracking program effectiveness. Measurable goals can be developed to evaluate activity effectiveness. For example, evaluating a structural BMP's effectiveness at reducing pollutant loadings or a public education campaign's effectiveness at reaching and

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informing the target audience to determine whether it reduces pollutants to the. A measurable goal can also be a design objective or a performance standard.

5. Tracking environmental improvement. The ultimate goal of the NPDES stormwater program is environmental improvement, which can be a measurable goal. Achievement of environmental improvement can be assessed and documented by ascertaining whether state water quality standards are being met for the receiving waterbody or by tracking trends or improvements in water quality (chemical, physical, and biological) and other indicators, such as the hydrologic or habitat condition of the waterbody or watershed.

Measurable goals that include these elements along with a schedule for completion and a quantifiable target will allow the City to assess progress at reducing pollutants to the MEP standard required by law.

2.3.1 PUBLIC EDUCATION AND OUTREACH

The City intends to provide public education and opportunities for the public to be involved in all aspects of the MS4 program. The public will be invited for involvement early in the process when considering technical changes or policy issues.

The City has developed an education program that includes a combination of distributing educational information through its various methods, outreach workshops put on either by the City or through partnerships with the watersheds, and providing stormwater messages to the City's youth through the schools. This program is coordinated through the City's communication department. Existing programs will be expanded as necessary to meet the requirements of the MS4 permit.

The City will provide stormwater education and outreach programs for residents annually.

Distribution of Education Information

The City uses a number of tools to distribute their education information. This distribution system includes the following:

- About Town newsletter
- Announcements made in "City Extra" email notification
- Social media enhancement and communications
- "Hometown Heroes" initiative
- Video messages for online and cable access channels
- Website
- Newcomer welcome package
- Public Works Pipeline

Using this distribution system, the City will be able to effectively reach a broad audience. The City will send out information using these tools annually prioritizing content based on approved TMDLs, industrial areas, and residential land uses.

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Coordination of Education Program

The Minnehaha Creek Watershed District (MCWD) and Nine Mile Creek Watershed District (NMCWD) have education and outreach programs. The training and education programs include:

- Citizen Advisory Committee (CAC)
- Education
- Outreach
- Training opportunities
- Volunteer activities

The training and education programs provide information on lawn care and maintenance, planting of native vegetation, reducing salt usage, and water conservation. City staff will coordinate with the MCWD and NMCWD to distribute educational materials and promote outreach programs. The City will meet annually with the watersheds to discuss priority topics and potential education programs that could be implemented the next year.

Prioritization of Education Program

The City will annually prioritize how their education information will be distributed. The prioritization will likely be based on areas discharging to approved TMDLs, industrial land uses, and residential land uses.

The industrial land uses within the City were largely constructed in the 1960's prior to the requirement for stormwater ponding facilities. Pollutants associated with industrial runoff include oils, grease, heavy metals, and toxic chemicals.

The residential properties were constructed during the 1950's and 1960's and lacked stormwater treatment. Providing education to the residents will help the citizens of Edina become part of the solution. It is not only important for the City to provide targeted information to the community regarding stormwater runoff, but also important to continue their program with distributing educational information to their residents. To prioritize their education program for residents the City will provide the following:

- Reducing their salt usage
- Establishing practices in their yards that will retain and possibly reuse runoff
- Using native vegetation
- Shoreline stabilization practices for residents living along the creeks.

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Program Evaluation

During yearly SWPPP review, the City will consider which materials are most effective for program implementation. These results will be used to provide more targeted educational information.

Information from citizen feedback related to all aspects of our SWPPP will be considered to determine education needs on a yearly basis.

2.3.2 PUBLIC PARTICIPATION AND INVOLVEMENT

The City will implement a public participation and public involvement effort in order to effectively communicate with their residents and business owners regarding stormwater management.

Citizens are actively engaged in many aspects of the City's governance through commissions, district councils, volunteer organizations and electronic communications. Other public involvement techniques include workshops, web page accessibility, and outreach by elected officials. The objective of this program is to increase the awareness throughout the City and reduce pollution found in stormwater runoff.

Annual Public Meeting

The City will host an annual public meeting and record the number of attendees, all comments received, and responses to each comment. The effectiveness of this BMP will be measured by the number of residents who attend. The annual public meeting may be done as a stand-alone meeting or done at another City event.

Comply with Public Notice Requirements

The City will provide notice to the public to allow for input on their SWPPP. This will include the opportunity to review annual reports, inspections records, and regulatory mechanisms as appropriate. The notice regarding the date and location of the meeting will be issued through the City's notification system including:

- Website
- Social media
- City Extra email notification system

Solicit Public Input

The City will conduct a public meeting and host a website on the City's SWPPP. The goal of this BMP will be met by hosting and recording all public comments received at the public meeting.

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Consider Public Input

The City will conduct a public meeting and host a website on the City's SWPPP. City staff will respond to all public comments and statements received from the public meeting, and document any proposed changes to the SWPPP due to public input. The goal of this BMP will be met by documenting all written and oral input.

Coordination Meeting

The City will annually hold coordination meetings with the MCWD and NMCWD. If a formal agreement is established with the watersheds, the meeting will include discussing assistance with educational activities, erosion control construction site management, post-construction stormwater management, and TMDL implementation.

2.3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The objective of this minimum control measure is to detect and prevent illicit connections and improper disposal of wastes into the MS4 by determining the types and sources of illicit discharges entering the system, and by establishing the legal, technical, and educational means needed to prevent these discharges into the MS4 within the scope of this SWPPP.

The purpose of the Illicit Discharge Detection and Elimination (Illicit Discharge) Program required by the Phase II Regulations is to detect and eliminate any discharges to a MS4 that it is not intended to accept, process, or discharge. Exceptions to this are discharges covered under another NPDES permit and those resulting from fire-fighting activities and other allowable non-stormwater discharges. Examples of allowable non-stormwater discharges include:

- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensation;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Water from basement sump pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;

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- De-chlorinated swimming pool discharges; and
- Street wash water

Federal guidance for this MCM encourages clear identification (mapping) and awareness (monitoring) of the MS4 system in order to determine the types and sources of illicit discharges entering the system. The City is committed to protecting their MS4 from illicit discharges that result from direct connections (e.g. cross connections between sanitary or industrial sewers and storm sewers) or indirect connections (e.g. spills that flow into the storm drainage system from parking lots, animal feeding operations, etc.).

Implementation of the City's Illicit Discharge Program includes a combination of structural and nonstructural measures focused on mapping the MS4, instituting appropriate enforcement actions, creating an Illicit Discharge Detection and Elimination Plan (IDDE), and educating the public about the Program. The City's IDDE Plan will communicate how to locate problem areas, track the source of illicit discharges, remove or correct illicit connections, and document actions taken.

The City will implement the following best management practices in order to effectively minimize risk and impact from illicit discharges affecting water resources within their community.

Storm Sewer System Map

The City has developed a comprehensive map of their storm sewer system. The system is mapped using GIS. It identifies the following:

- Pipes greater than 12 inches
- Stormwater ponds
- Lake, creeks, and wetlands
- Outfalls
- Structural Stormwater Best Management Practices

The City will review and update the storm sewer map annually. Updates made will be the result of City projects, development/redevelopment, and corrections/omissions identified in the field.

Regulatory Control Program

The City evaluated their MS4 program in October 2013. During the evaluation, it was determined that it is necessary to revise the program to properly address concerns associated with non-stormwater related discharges. The City will revise their regulatory mechanisms to prevent impacts to water bodies from non-stormwater related discharges. The regulatory mechanisms will define what constitutes illicit discharge and connection. Enforcement mechanisms will be developed. Revisions to the regulatory mechanisms will be completed in 2014 including the adoption of an ordinance. The regulatory mechanisms will be evaluated annually to determine if changes are warranted.

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IDDE Plan

The City has developed and will implement a program to detect and reduce non-stormwater discharges, including illegal dumping. The plan includes procedures for detecting, tracking, and eliminating illicit discharges as follows:

- Preventing illicit discharge through the City's education program, which includes training for public employees. The City or its designee will discourage illegal dumping by educating the public (residents, businesses, and staff) on potential sources and effects as well as alternative uses for unwanted materials. Information will be provided on recycling options, services, and programs within the City such as drop-off sites for household hazardous waste.
- Mapping areas which are more likely to have illicit discharges (High Priority Illicit Discharge Map)
- Detecting illicit discharges through the use of:
 - Annual inspections of high priority areas and including illicit discharge evaluations as a part of routine City operations
 - A citizen call-in program that will be publicized using the City's public education program
- Investigation procedures include performing a visual analysis and then tracking the illicit discharges to the source using one or more of the following techniques:
 - Sampling
 - Damming
 - Optical brightener traps
 - Televising
 - Smoke testing

Enforcement Response Procedures

Eliminating illicit discharge will be accomplishing through implementing the City's Enforcement Response Procedures (ERPs). The ERPs identify the use of:

- Verbal warnings
- Written warnings
- Stop Work orders
- City removal of connections/discharges
- Civil actions

Documentation Procedures

Illicit discharges or complaints of illicit discharges will be documented through the City Works system. Edina's City Works system is a web based data asset management system that allows the City to log work orders, inspections, and citizen complaints.

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2.3.5 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The purpose of the Construction Site Stormwater Runoff Control (Construction Stormwater) Program, required by the Phase II Regulations, is to ensure appropriate stormwater pollution prevention measures take place during construction activities. Federal guidance for this MCM encourages the development of a Construction Stormwater Program that uses effective enforcement mechanisms to protect receiving waters.

The City remains committed to facilitating appropriate enforcement mechanisms, consistent site plan review, and comprehensive site inspections in a manner that is open to the public. Successful implementation of this MCM will allow the City to identify the scope construction activity has on receiving water quality. It will also train City employees on how to prevent construction sites from discharging polluted runoff, maintaining compliance with the NPDES permit requirements as well as from sites that disturb less than 1 acre.

Per the MPCA, Construction Activity is defined as:

“Construction Activity” includes construction activity as defined in 40 CFR § 122.26(b)(14)(x) and small construction activity as defined in 40 CFR § 122.26(b)(15) and construction activity as defined by Minn. R. 7090.0080, subp. 4. This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into surface waters or drainage systems. Examples of construction activity may include clearing, grading, filling, and excavating. Construction activity includes the disturbance of less than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more. Construction activity does not include a disturbance to the land of less than five (5) acres for the purpose of routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

The following activities will be implemented by the City to manage impacts from construction activity.

Regulatory Mechanism

The City evaluated their MS4 program in October 2013. During the evaluation it was determined that it is necessary to revise their program in order to properly address concerns associated construction activity that could negatively impact water quality. The City will revise their regulatory mechanisms to prevent impacts to waterbodies from construction activity.

The regulatory mechanisms will define what constitutes regulated construction activity in the City and what BMP requirements are necessary to provide treatment for construction activity. BMP requirements include the following:

- BMPs to minimize erosion

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- BMPs to minimize the discharge of sediment and other pollutants
- BMPs for dewatering activities
- Site inspections and records of rainfall events
- BMP maintenance
- Management of solid and hazardous wastes on each project site
- Final stabilization upon the completion of construction activity, including the use of perennial vegetative cover on all exposed soils or other equivalent means
- Criteria for the use of temporary sediment basins

Revisions to the regulatory mechanisms will be completed in 2014 and will include either the adoption of a new ordinance or revised policies. The establishment of partnerships with the MCWD and NMCWD may be a part of the revised regulatory mechanism. The regulatory mechanisms will be evaluated annually to determine if changes are warranted.

Construction Site Erosion and Sediment Control Program

Construction site operators must conform to the requirements of the NPDES Phase II permit, watershed permits, and local city permits for construction site erosion control on sites needing a permit from the City. Activities requiring a permit in the City include:

- Grading activities as defined by the City code
- Tree removal
- Building permits
- Activities needing a Conditional Use Permit (CUP)

As part of the City's permit approval standards, erosion control BMPs must be implemented in accordance with the NPDES permit requirements, watershed rules, grading permit stipulations, and applicable city codes.

The City's programs to detect and reduce impacts associated with construction activity are as follows:

- Plan review and approval
- BMP requirements for private projects
- Routine inspection and priority inspection criteria
- Training of City staff
- Establishment of partnerships with watershed districts
- BMP requirements for public projects
- BMP Guidance Document

Documentation Procedures

Documentation of complaints and inspections conducted on sites with active construction activity will be documented using inspection forms. Edina used the City Works system to track public works activities. This system potentially may be expanded to assist with the document

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requirements of the construction site erosion and sediment control program. The City Works system is a web based data asset management system that allows the City to log work orders, inspections, and citizen complaints.

2.3.6 POST-CONSTRUCTION STORMWATER MANAGEMENT

The purpose of the Post Construction Stormwater Program, required by the Phase II Regulations, is to ensure appropriate stormwater pollution prevention measures are taken for new development and redevelopment. This applies to development and redevelopment sites that disturb equal to or greater than one acre. For new development this includes the creation of one acre of new impervious.

Regulatory guidance for this MCM encourages the development of a Post Construction Stormwater Program that focuses on prior planning and design for minimization of pollutants from post construction stormwater discharges.

The City is committed to facilitating the appropriate enforcement mechanisms and ensuring long-term operation and maintenance of stormwater controls. Successful implementation of this MCM will allow the City to identify and minimize the long-term water quality impacts that construction projects have on receiving water quality through the use of structural and non-structural BMPs. The City's objective for this program is to reduce the discharge of pollutants and stormwater runoff from public and private development and redevelopment projects. Redevelopment of existing sites presents the opportunity to lessen the impacts of urbanization on the lakes, creeks, and wetlands since most present land uses were created prior to regulation under the Clean Water Act.

Regulatory Mechanism

The City will implement the requirements of the Comprehensive Water Resource Management Plan (CWRMP), along with applicable City ordinances to minimize the negative impacts stormwater runoff may have on water quality within the City. Additionally, the MCWD and NMCWD have stormwater rules that require the treatment of stormwater runoff associated with development and redevelopment. Their rules require the capture and treatment of the runoff volume associated with the increase in impervious surfaces. Their rules also require that applicants meet their phosphorus control standards. These rules are as restrictive, if not more restrictive, than the requirements of the MS4 General Permit.

The City will evaluate the possibility of establishing partnerships with the MCWD and NMCWD. The partnerships will establish the responsibilities of each entity including review responsibilities, site inspections, and long-term operation and maintenance. For example, the City's review will be more specific to the stormwater conveyance system and the watershed will be responsible for reviewing the stormwater treatment system.

Revisions to the regulatory mechanisms will be completed in 2014, including either the adoption of a new ordinance or revised policies. The revised regulatory mechanism would include the

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establishment of any partnerships with the MCWD and NMCWD. The regulatory mechanisms will be evaluated annually to determine if changes are warranted.

Post-Construction Stormwater Management

Applicants are required to submit a plan to address post-construction stormwater standards for projects in the City including sites needing building permits, subdivisions, conditional use permits. As a part of their review process, the City verifies that applicants have received the applicable watershed permits from the MCWD and NMCWD.

The City's program to regarding post-construction stormwater management includes the following:

- Plan review and approval
- Establishment of Stormwater Treatment Practices (STPs)
- Long term operation and maintenance
- Tracking of STPs installed

Plan Reviews

The City uses a site plan review checklist for all reviews. The review checklist will be updated to include the new requirements for post-construction stormwater management, including any review requirements that are established due to partnerships established with the watershed districts. All updates will be completed and implemented within 12 months of permit coverage being extended.

Establishment of Stormwater Treatment Practices (STPs)

The City will evaluate the implementation of structural and non-structural STPs during both public and private projects. The City will consider both structural and non-structural STPs with the intent of reducing the discharge of pollutants from their MS4 to the MEP standard.

Structural

The City will review permanent BMP designs and criteria for post-construction stormwater management associated with new development and redevelopment meeting the criteria established by the city code, watershed districts, and MS4 general permit. The City will also consider the implementation of low impact development practices if prudent and feasible and rely on the watersheds as the lead agencies in establishing the requirements for post-construction stormwater management. The City will annually review and revise (if necessary) the current policies, requirements, and BMPs specific to post-construction stormwater treatment practices.

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Non-Structural

The City may also improve the condition of parks, wetlands, streets, and watersheds when the opportunity arises using the following potential non-structural stormwater BMPs:

- Protection of natural areas
- Prioritized street sweeping
- Disconnection of impervious
- Soil amendments

Long Term Operation and Maintenance of BMP

The City will evaluate the potential of establishing partnerships with the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District to enforce watershed maintenance agreements. Maintenance agreements are established during the permit review and approval process. The nature of the partnership will define the roles of the City and the roles of the watershed districts. The agreement may be established within 12 months of permit coverage being extended.

Private BMP Tracking

The City will update their regulatory mechanism within 12 months of the extension of permit coverage to require the submission of record plans for the construction of all private structural BMPs. Private structural BMPs will be added to the City's storm sewer system map as they are constructed, which will in turn be incorporated in the City Works system. This will allow the City to track all BMPs, including any maintenance requirements that may be associated with these BMPs.

Documentation Procedures

Documentation of site information, plan reviews, compliance with post-construction stormwater management, and long-term operation and maintenance requirements are currently kept in the project file. Additionally, information is to be kept in a project review spreadsheet and in the Permit Information System (PINs). The City will continue to manage their information using these tools. The long-term goal may be to incorporate this information into Edina's City Works system.

2.3.7 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

The objective of this program is to minimize the discharge of pollutants through proper and cost-effective operation and maintenance of the City's storm sewer system. General operations and maintenance efforts include inspections, cleaning, repairs, rehabilitation and reconstruction.

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Municipal Operations, Maintenance, and Training Program

The City will implement the Stormwater Management and Maintenance programs identified within the City's Comprehensive Water Resources Management Plan (CWRMP) and as specified in this document.

The City will also provide training materials and workshops to City staff to help reduce stormwater pollution caused from park maintenance, fleet and building maintenance, new construction and land disturbances, outfall inspections, and storm sewer system maintenance.

Annual Inspection of all Structural Pollution Control Devices

The City Public Works Department will inspect all identified City-owned structural pollution control devices and prescribe a maintenance schedule as necessary. Newly constructed and rebuilt structural pollution control devices will be added to the storm sewer map.

Inspection of Outfalls and Sediment Basins/Ponds

The City will inspect all mapped outfalls, sediment basins, and ponds within the City's storm sewer system. The results of these inspections will be compiled in a report which will include sediment levels, watershed information, recommended maintenance, and maintenance schedules. They will be inspected at a minimum at least once per permit term.

Facility Inventory

The City has 125 facilities. Each of these facilities was evaluated for their potential to contribute Pollutants of Concern (POC) in stormwater runoff. Of these facilities evaluated, only five have been determined to have POC present. A map and index has been prepared identifying each of these facilities. For the five facilities where POC are present, a site map has been prepared that identifies current BMPs being implemented to control pollutants along with proposed BMPs for implementation.

Inspections of All Exposed Stockpile, Storage, and Material Handling Areas

As identified through their facility inventory, the City has five facilities that have POC present where they have stockpile, storage and material handling areas. Each of the facilities identified to have POC present will be inspected quarterly. All existing onsite BMPs will be inspected for conformance with NPDES Phase II permit requirements and any non-compliance items will be corrected and documented per NPDES Phase II standards.

Pond Assessment Procedures and Schedules

The City completed a non-degradation assessment in 2007. The non-degradation assessment included using the Simple Method to calculate 1988, 2006, and 2020 pollutants loadings for volume, TP, and TSS. To determine the impact the watershed standards will have on the City, a P8 model was developed.

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The City will use the modeling techniques developed for the non-degradation assessment completed in 2007 to evaluate the treatment effectiveness of City owned stormwater ponds. The City has eight stormwater ponds to inspect and maintain. The City will inspect all of these stormwater ponds during the permit cycle and update their models to determine the treatment effectiveness. Ponds that have had their treatment effectiveness reduced by fifty percent will be further evaluated for maintenance needs.

Street Sweeping

The City brush or vacuum sweeps streets a minimum of twice annually in an effort to reduce the amount of sediment, trash, and organic material from reaching the storm sewer system and water resources. The City will continue to review the street sweeping program to ensure effective removal of phosphorous and fecal coliform from City streets.

Landscaping and Lawn Care Practices

The City will annually review and, if necessary, adjust its current practices in the use of fertilizer, pesticide and herbicide application, mowing and discharge operations, grass clipping collection, mulching, and composting.

Road Salt Application

The City is within the watershed of the Nine Mile Creek Total Maximum Daily Load (TMDL) and has been assigned a Waste Load Allocation (WLA). In addition Minnehaha Creek is impaired for excess chlorides and the City is within the Metro Chloride Feasibility study area. The City will annually review the practices and policies of road salt applications such as alternative products, calibration of equipment, inspection of vehicles, and staff training along with the following measures to reduce their use of road salts:

- Automated brine system and storage tanks
- GPS tracking of application rates
- Establishment of prioritized plow rates based on sensitivity of receiving waters
- Partner with the Nine Mile Creek Watershed District regarding a public education campaign on the proper use of deicing materials on commercial and private properties

Backwash Recycle Tanks

The City constructed backwash recycling tanks at water treatment plants #2, #3, and #4. Backwash water recycle tanks will collect the backwash water which now flows to the stormwater system. The backwash water will stay in the tanks until the suspended solids settle out. The backwash water will then be retreated and put into the potable water supply. The settled solids will be discharged to the sanitary sewer system. Each plant will have an emergency overflow point in the recycling tanks, which will enter the same storm sewer system to which each plant currently discharges. The overflow points will be locked controlled discharges.

PART 2: STORMWATER MANAGEMENT PROGRAM

Spill Prevention & Control Plan for Municipal Facilities

As a part of their written procedures developed for the pollution prevention and good housekeeping practices, the City has identified procedures for spill prevention and response. The implementation of this written procedure will begin in 2014 and will include conducting annual spill prevention and response training sessions to all municipal employees and distribution of education materials, such as posters and pamphlets, to each municipal facility.

System Maintenance

The City will determine whether repair, replacement, or maintenance measures are necessary by evaluating inspection reports and other pertinent data specific to the operation of their storm sewer system information. All corrective maintenance, repair, and/or replacement measures will be documented and recorded by the City's public works staff. A ranking is given during the inspection process to prioritize maintenance.

Evaluation of Inspection Frequency

The City will retain records of inspection results and any maintenance performed/recommended on their storm sewer system including storm sewer, ponds, and SSBMPs. After two years of inspections, if patterns of maintenance become apparent the frequency of inspections may be adjusted at the discretion of the Public Works Director given the following conditions are fulfilled:

1. If maintenance or sediment removal is required as a result of each of the first two annual inspections, the frequency of inspection shall be increased to at least twice annually or more frequently as needed to prevent carry-over or washout of pollutants from structures and maximize pollutant removal.
2. If maintenance or sediment removal is not required as a result of both of the first two annual inspections, the frequency may be reduced to once every two years.

Documentation Procedures

Documentation of municipal inspection and maintenance activities will be completed through the City Works system. The City Works system is a web based data asset management system that allows the City to log work orders, inspections, and citizen complaints.

2.3.8 TMDL PROGRAM

Stormwater runoff from the City is discharged to several surface waterbodies. Several of these waterbodies have been listed on Minnesota's Impaired Waters List for having the presence of concentrations of certain pollutants at levels higher than Minnesota standards. The permit requires that the City identify action items for a TMDL study which has been completed and approved prior to the effective date of the permit. In the City, the only approved TMDL in place prior to the effective date of the permit was the Nine Mile Creek Chloride TMDL.

PART 2: STORMWATER MANAGEMENT PROGRAM

TMDL Study Process

Providing early and significant involvement in the TMDL process including information, data, and expertise unique to the City will allow the most flexibility in meeting the TMDL requirements. The City will participate in pollutant source identification, modeling assumptions, and TMDL equation development. Additionally, the City will work to ensure that the study is considering all cost-effective options for achieving water quality, and that the study is emphasizing the importance of locally led decisions on where and how to spend local money to address water quality issues. This will ensure that MS4 WLAs are equitable and adequately address reasonable assurance provisions and that implementation plans are done concurrently with TMDL studies. Participation in the TMDL study process will ensure that TMDL based projects can be implemented in a manner that is consistent with the City's goals and objectives.

EPA Approved TMDL

A general timeline and strategy for implementing BMPs general activities to be conducted within each permit cycle will be developed. This was done for the City of Edina as a part of the submittal of the application for reauthorization and the City identified interim milestones for BMP implementation. This included identifying the following BMPs for the Nine Mile Creek TMDL:

- Installation of an automated brine system
- GPS tracking of application rates
- Establishment of prioritized plow routes based on sensitivity of receiving waters
- Partnering with the Nine Mile Creek Watershed District on public education initiatives
- Annual evaluating the potential to decrease salt usage through either additional staff training or upgrading equipment

For an individual WLA, the City will track practices and calculate their effectiveness for progress in reducing loads to meet WLAs assigned to the City. Anticipated load reductions will either be calculated as a part of each project implemented or tracked as activities are implemented. The SWPPP will be reviewed annually to determine the progress the City is making towards meeting TMDL requirements. If the SWPPP needs modification to make reasonable progress in meeting the approved individual WLA, the knowledge and information gained through adaptive management over time to develop additional or modified practices or programs will be incorporated.

Section III.
Enforcement Response Procedures

ENFORCEMENT RESPONSE PLAN

Enforcement Response Plan

MS4 Permit No. MS400016

March 2014

City of Edina, MN

4801 W. 50th Street

Edina MN 55424

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ACRONYMS

ACRONYMS

BMP	Best Management Practice
CGP	Construction General Permit
ECC	Erosion Control Coordinator
ERP	Enforcement Response Plan
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ROW	Right-of-Way
SWPPP	Stormwater Pollution Prevention Plan
USEPA	United States Environmental Protection Agency

SECTION 1

1. INTRODUCTION AND BACKGROUND

This Stormwater Enforcement Response Plan (ERP) codifies enforcement procedures used by the City of Edina (City) to enforce provisions of its National Pollutant Discharge Elimination System (NPDES) Statewide Stormwater Permit No. MS400016 (hereafter referred to as the MS4 Permit). Under the MS4 permit, the City is to control the release of pollutants to and discharges from the municipal separate storm sewer system (MS4) which is owned or operated by the City through rules and regulations regulating stormwater discharges. The goals of the MS4 permit are as follows:

- Control the contribution of pollutants to the MS4 by stormwater and non-stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity.
- Prohibit illicit discharges to the MS4.
- Control the discharge to the MS4 from spills, dumping, or disposal of materials other than stormwater.
- Require compliance with conditions in State statutes, rules, permits, contracts, and orders.
- Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the MS4.

The City's MS4 consists of a conveyance or system of conveyances owned by the City that is designed or used for collecting or conveying stormwater, which is not a combined sewer and which is not part of a publicly owned treatment works.

1.1 *Purpose*

This ERP describes the measures available to the City to exercise its authority. The ERP identifies enforcement procedures designed to encourage a timely response by the discharger. Implementation of the ERP will ensure a consistent response throughout the City and avoid confusion, delays, and disputes over enforcement for stormwater pollution prevention.

An effective enforcement program depends on detailed and comprehensive documentation of all contacts with the alleged violator and of all evidence establishing the violation. Investigations and enforcement actions must be handled quickly. The City is required by the Permit to investigate reports of illicit discharges and initiate enforcement action to eliminate the source(s) of the discharge.

1.2 *Edina's Permit History*

The City's current MS4 permit was issued by the State of Minnesota's Pollution

SECTION 1

Control Agency (MPCA) and became effective on August 1, 2013. This permit replaces the previous National Pollutant Discharge Elimination System (NPDES) MS4 permit issued by the MPCA on June 1, 2006. The scope of the current permit includes all stormwater discharges associated with construction sites, industrial facilities, maintenance facilities, and other activities within the MS4's jurisdiction.

1.3 Types of Enforcement Actions

The City will use City Code, permits, and penalties to enforce illicit discharges to the City's MS4 system. The City anticipates two general types of stormwater violations: construction sites and illicit discharges or connections to the City's MS4. Potential violators include construction contractors, businesses, industries, private citizens, and other governmental agencies which are detailed below.

1.3.1 Construction Sites

The City's construction contractors are required to obtain all required permits pertaining to land disturbance activities from various agencies. Permits could include watershed, DNR, City, or State permits.

To that end, the City has inspection oversight responsibility and must ensure that a trained employee inspects construction activity at sites until final stabilization is achieved. The MS4 permit requires the City to implement a system to monitor contracted construction activities and to enforce Permit provisions. The City is required to list and describe all violations and enforcement responses taken for construction activities in the Annual Report submitted to MPCA.

The City's authority to take enforcement action at construction sites is derived from its city code along with permit language.

1.3.2 Illicit Discharges and Connections

The Permit also requires Edina to take measures to detect and eliminate illicit discharges and connections to the City's MS4. An illicit discharge is defined as any discharge to a MS4 that is not composed entirely of stormwater, with the exception of allowable non- stormwater discharges and separately permitted discharges. Illicit connections are defined as any man-made conveyance that connects an illicit discharge directly to the MS4. The City is required to implement a program to minimize, detect, investigate, and eliminate illicit discharges and connections, including unauthorized non-stormwater discharges and spills, into the MS4 system.

SECTION 2

2. METHODS OF DISCOVERY OF NON-COMPLIANCE

Reports of a stormwater violation or non-compliance may come from one of several sources:

- Reports from City Staff – Illicit discharges and discharges of sediment or other pollutants from the construction sites, facilities, or other sources within the City's MS4 may be observed by City staff as they conduct normal activities such as driving to or from job sites or when inspecting other activities. Such non-compliances could include water and wind erosion, sediment tracking onto local streets, poor housekeeping, location of concrete washouts, and failed or ineffective best management practices (BMPs).
- Permit Compliance Activities – Non-compliances may be discovered through Permit-required inspections or monitoring, including construction site inspections, dry weather screening, and stormwater sampling.
- Contractor Compliance Activities – A construction contractor's failure to comply with the State's Construction General Permit requirements such as conducting and submitting inspection reports, obtaining annual certifications, preparing and implementing Stormwater Pollution Prevention Plans (SWPPPs).
- Reports from the Public – Public complaints may come directly to City or through other local, state or federal government agencies.

SECTION 3

3. CONSTRUCTION SITE EROSION AND SEDIMENT ENFORCEMENT

This section imposes the obligation of an applicant to perform their duties in an honest, diligent, and cooperative manner.

The following section describes the City's authority and the mechanisms for enforcing Permit provisions on construction sites within the boundaries of the City's MS4 jurisdiction.

3.1 *Compliance Requirements*

Compliance with stormwater permits and laws on construction projects within the City's MS4 must be enforced according to these Enforcement Response Procedures.

- Applicants are to comply with the State's NPDES CGP, City, and Watershed permits for regulated construction projects, including the obligation to file a NOI and obtain authorization under the State CGP for each construction project or site. The applicant shall also file a NOT for each construction project or site, either terminating their responsibility if final stabilization has been achieved, or transferring it to another owner for completion.

3.2 *Construction Enforcement*

When stormwater non-compliance is identified by the City enforcement actions will be taken promptly but no later than 7 days following identification of the non-compliance. The City will take appropriate sanctions against the applicant based on the nature and severity of the situation. Non-compliances will be classified as minor or major violation. Major violations are generally those acts or omissions that lead to a discharge of pollutants to stormwater. Minor violations are generally instances of non-compliance that do not directly result in such a discharge. Serious discharges or an imminent threat of discharge on a project may require an immediate escalation to a higher level of enforcement. The level of enforcement response will depend upon several factors:

- Severity of the violation: the duration, quality, and quantity of pollutants, and effect on public safety and the environment
- The violator's knowledge (either negligent or intentional) of the regulations being violated
- A history of violations and /or enforcement actions individual or contractor
- The potential deterrent value of the enforcement action

The City will use the following progressive enforcement policy, escalating the response when an applicant fails to respond in a timely manner. If the City identifies a

SECTION 3

deficiency in the implementation of the approved SWPPP or amendments and the deficiency is not corrected immediately or by a date requested by the City. the project is in non-compliance. The recommended sequence of enforcement actions are detailed below.

3.2.1 Verbal Warning

This action is a verbal exchange between an inspector or the resident engineer and the alleged violator. The information exchanged will be documented by the inspector. Typically, no letter is written if the problem is corrected immediately and the inspector or resident engineer observes the corrective action and deems it appropriate.

3.2.2 Written Warning

A warning letter may be issued if the non-compliance continues for 7 days after the verbal warning is issued, if the non-compliance cannot be corrected while the inspector is on site, or if the non-compliance is a significant violation. The warning letter will document the reasons why the discharge is illegal and provide deadline for compliance. Based on the type and severity of the non-compliance, the period between the verbal and written warnings may not wait the full 7 days. Compliance is required within 7 days to avoid additional enforcement actions; however, if the situation warrants, shorter or longer deadlines maybe permissible. A sample letter to violators is provided in Appendix A.

3.2.3 Stop Work Order

If the verbal and written warnings do not result in corrective action by the documented deadline, the City may stop work (full or partial shutdown) at the construction site. Upon successful corrective action in response to a stop work order and upon approval by the City work may begin at the site. Example stop work orders are provided in Appendix B.

3.2.3.1 Temporary Suspension of Work

If immediate action is required due to an imminent threat of discharge or if the contractor does not respond to the warning letter with in the required time frame, the City may temporarily suspend work on the project until the corrective action has been completed.

3.2.3.2 Require Corrective Action

The City may require the permit holder to undertake corrective or remedial action to address any release or threatened release or discharge of the hazardous substance, pollutant or contaminant, water, wastewater, or stormwater.

SECTION 4

4. ILLICIT DISCHARGES AND CONNECTION ENFORCEMENT

The City is responsible for monitoring discharges to its MS4. The Permit requires the City to ensure that the discharges do not cause or contribute to an exceedance of water quality standards. Any discharge/connection without permission is an illegal encroachment on the City's MS4. A discharge/connection can be discovered in two ways, either through routine inspection or due to a complaint.

Similarly to the process in **Section 3.3**, notification of observed illicit connections or discharges will be carried forward to the connector/discharger by the inspector or observer. The City will use the following progressive enforcement policy, escalating the response when a discharger fails to respond in a timely manner.

4.1 *Verbal Warning*

When a routine inspection of the drainage system identifies an illegal connection/discharge to the City's MS4 system, the inspector documents the discharge on a Dry Weather Field Screening Site Report or in their City electronic management system, which will be provided to Laura Adler, Water Resources Coordinator within 48 hours, as well as notify other departments and agencies as appropriate.

If the source of the connection is evident, the observer/inspector will contact the connector/discharger directly by phone or in person to discuss elimination. The communication will include requesting any permits or other authorizations and providing a follow up date (within 15 days). If the discharge is permitted or authorized (documentation is required), no further action is required; if the discharge is not authorized, it will need to be addressed or ceased within 15 days.

4.2 *Written Warning*

If after 15 days the illicit connection/discharge has not been corrected, the Water Resources Coordinator will issue a "Notice of Illegal Discharge and Demand for Corrective Action" letter to the property owner (example letter in Appendix C). The letter will request that the connection/discharge be ceased or removed within 30 days. A follow up inspection will be performed by the Water Resources Coordinator to ensure compliance. If the connection/discharge has not been corrected, the incident will be referred internally to the City's environmental engineer for further review.

4.3 *Removal of Connection/Discharge*

The City may remove the illegal connection/discharge if it has not been corrected within a suitable timeframe. If the City removes the illegal connection/discharge, the responsible party is subject to civil action for damages.

SECTION 4

4.4 Civil Action

If the illegal connection/discharge is not corrected within 60 days of observation, the Water Resources Coordinator may forward the matter to be considered for further legal action. Additional measures will be escalated as needed to achieve compliance.

4.4.1 Minnesota Pollution Control Agency

Authority to administer the state MS4 permit in Minnesota rests with the MPCA. The MPCA has several enforcement mechanisms for violations of NPDES rules, including fines.

4.4.2 United States Environmental Protection Agency

Although the USEPA delegated authority for the NPDES Program to the state of Minnesota, the USEPA reserves the authority to apply fines in addition to fines issued by the MPCA. Federal environmental regulations based on the Clean Water Act allow the USEPA to levy fines on dischargers of up to \$27,500 per day per violation.

SECTION 5

5. EMERGENCY RESPONSE CONDITIONS

The City's MS4 Permit identifies "discharges from emergency situations where federal rules specify washing as the preferred method to assure public safety" as an authorized non-stormwater discharge. Such discharges will not be subject to enforcement action.

SECTION 6

6. REPORTING REQUIREMENTS

The City shall provide a list and description of all violations and their resolutions, including any enforcement actions taken against contractors, corporations, or other entity in the Annual Report to MPCA. At a minimum, the inspector should document the source of the complaint, the date, the time, the contact person (if any), a description of the nature of the non-compliance or illicit discharge, actions taken, and final resolution.

APPENDIX A

Non-Compliance Notice to Contractors

Appendix A

CITY OF EDINA NON-COMPLIANCE NOTICE

FROM: _____

TO: _____

You are hereby notified that inspection on <insert date> indicates that the

Does not conform to permit/city code requirements for discharges to the city's MS4 system.

APPENDIX B

Stop Work

Stop Work Order

Inspections Department

**A Stop Work Order violation shall constitute a Class 1 misdemeanor.
Daily fines may be levied.**

Date

Address

Name

WORK TO STOP

The following permits are required

Building Footings Slab Foundation Framing Insulation Final

Electrical Temporary Board Rough-In Final

Mechanical Gas Rough-In Final

Plumbing Gas Rough-In Final

Other

Work may continue after all required permits have been issued or violations have been resolved.

Inspector _____ **Phone** _____

APPENDIX C

Notice of Illegal Discharge and Demand for Corrective Action

NOTICE OF ILLEGAL DISCHARGE OR CONNECTION

Person or Business Name
Address
Edina, MN

Dear Property Owner:

The City of Edina is responsible for maintaining the storm sewer system. The Minnesota Pollution Control Agency (MPCA) Municipal Separate Storm Sewer System General Permit requires the City to control the amount of pollutants entering the drainage system. Part of this charge is the detection and elimination of illegal discharges or connections to the system that may contain pollutants or are otherwise not allowed. Left uncorrected, any pollutants entering the system will ultimately impact nearby streams, as storm drainage is not treated at any sort of treatment facility. Any discharge/connection without permission is illegal and requires immediate termination of the discharge.

An inspection of the drainage system has occurred in the vicinity of your property and an illegal connection/discharge was discovered entering into the City system. The discharge/connection was discovered on <insert date> at <insert business name and address>.

Indicators or Source include pipng and staining.

Photographs of this discharge/connection are enclosed with this letter. In addition, I have enclosed an aerial photograph showing the location of this discharge/connection.

This discharge or connection must be ceased or removed within 30 days. A follow-up investigation will be conducted after that time to ensure compliance. If the situation is not corrected, the City will take corrective measures, including but not limited to referring this matter to the MPCA so that enforcement action can be taken, which may include the issuance of a fine. In the alternative, the City may remove the discharge/connection and bill you directly pursuant City Code, Section 1035. If the illegal discharge/connection cannot be removed within 30 days, you do not understand this notice, or you disagree that an illegal discharge/connection exists at your property, please contact me with further details or explanation by calling 952-826-0445 or by email at ladler@edinamn.gov.

Sincerely,

Laura Adler
Water Resources Coordinator
City of Edina
7450 Metro Boulevard
Edina, MN 55439

Enclosure (photographs)

Cc:

Section IV.
Standard Operating Procedures

STANDARD OPERATING PROCEDURES

Minimum Control Measure 3 Illicit Discharge Detection and Elimination

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MINIMUM CONTROL MEASURE 3

1 INTRODUCTION

1.1 Basis for the Standard Operating Procedures (SOPs)

On August 1, 2013, the Minnesota Pollution Control Agency reissued their National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires the City of Edina to develop written procedures for the purpose of eliminating non-stormwater discharges through the development of an Illicit Discharge Detection and Elimination Program.

This manual not only assists the City in meeting the Stormwater Phase II regulations, but encourages them to use targeted best management practices (BMPs) to prevent the discharge of non-stormwater related discharges. This Guidelines and Standard Operating Procedures Manual will help promote behavior to improve the water quality of the City of Edina's lakes, ponds, creeks.

1.2 Objectives of the SOPs

This manual is intended to provide guidance on Illicit Discharge Detection and Elimination (IDDE) as follows:

- Provide guidance to municipalities regarding commonly found illicit discharges.
- Provide guidance to municipalities for prioritizing areas where illicit discharges are commonly found.
- Provide tools for detecting, tracking, and eliminating illicit discharges.

2. LOCATING PRIORITY AREAS

A map has been provided within the appendix that identifies potential priority areas for detecting illicit discharges based on land use. The methodology for further establishing priority areas is detailed in **Section 2.1**. The City is recommended to complete the prioritization at least once during each five year permit term.

2.1 Review of Available Information

Activities and Definition

Priority areas for IDDE will vary depending on water quality conditions, land use, etc. A relatively simple desktop assessment of available community information can provide many clues as to where illicit discharges may be occurring for basing the prioritization.

MINIMUM CONTROL MEASURE 3

Preparation

The following is a list of resources that should be collected and reviewed and a brief description of factors to consider during the prioritization process:

- a. Zoning Maps
Industrial areas with high density development may have a high illicit discharge potential. *A map is provided in Appendix A that identifies these areas.*
- b. Locations of Previous Illicit Discharges
Areas with historical illicit discharge reports or previous citizen complaints should be considered high priority. *The only known areas with reports of historical discharges are within the industrial areas and are considered a priority.*
- c. Approximate Density of Known Outfalls per Stream Mile
Areas with a high density of outfalls should be considered high priority. *This area is not considered a priority at this time and may be reevaluated.*
- d. Age of Infrastructure/Development
Older areas of the community should be considered high priority. *The City will evaluate these during their outfall inspections to determine if additional prioritization should be given to these areas.*
- e. Location of Public Sanitary Sewer/Age of Sewer/Date of Separation
Older areas that were put on public sewer or separated long ago should be considered high priority. *The City of Edina does not have any areas of the City that have to undergo a sewer separation. The sanitary and storm system has always been separated.*
- f. Location of Areas on Septic Systems
Older areas on septic systems should be considered high priority. *There are no areas within the City that are on individual septic systems.*
- g. Water Quality Information
In 2014 the water quality information will be evaluated to determine if there are any areas of where high concentrations of pollutants are identified. The City of Edina's primary water quality concerns are associated with excess chlorides and E. Coli bacteria being found in Nine Mile Creek and Minnehaha Creek.
- h. Areas that Drain to Public Beaches
These areas should be designated as high priority for public health and economic reasons. *Edina does not have any public beaches connected to public waters.*

2.2 Mapping Verification Process

- a. The City of Edina will begin a mapping verification process to occur in coordination with their storm sewer and pond inspections. The verification process will include walking all named waterbodies within a given area of the community and collecting outfall location and design information using global positioning system (GPS) equipment. Review and field check other structures catch basins, culverts, pipes, ditches, drain manholes, etc.

MINIMUM CONTROL MEASURE 3

- b. Collect dry weather inspection information whenever possible. Dry weather discharge information can either be collected on the paper forms for manual entry into a separate database at a later time, or can be directly entered into a database on a laptop or the data logger on-site.
- c. Mark the outfall with its identifier for future location and easy reference using pre-manufactured signs.

3. ILLICIT DISCHARGE DETECTION

Detecting illicit discharges in the City of Edina is done through routine inspections of their system, as a result of Citizen Complaints, and due to opportunistic detection.

3.1 Detection Process

A Dry Weather Outfall Inspection Form can be used during mapping or routine inspections to detect continuous, transitory, or intermittent discharges. The form should be completed whenever evidence of an illicit discharge is observed such as significant flow during dry weather, the presence of raw sewage indicators, staining, or residue. If the municipality is using paper forms to document inspections, they should complete a Dry Weather Outfall Inspection Form even if there is no evidence of an illicit discharge.

Long-term, regular inspections of outfalls are a primary part of an effective IDDE program. Regular inspections will not be significantly different from inspections conducted during mapping. The Dry Weather Outfall Inspection Form can be used. The major difference from mapping inspections will be that a crew or inspector will have historical data to work with to make assessments. These inspections can be recorded in an electronic database or paper forms can be kept.

Most public works crews conduct their regular duties in and around the storm drain system. A Program Manager may elect to have crews conduct outfall inspections on a formal basis (actually bringing an inspection form and equipment) while performing other work, or the Program Manager may elect to have crews informally “keep a look out” for illicit discharges. If an employee observes evidence of an illicit discharge during an informal or non-routine inspection, they should collect as much information about the potential illicit discharge as possible then contact their supervisor so that appropriate action can be taken.

It is important to collect as much information as possible at the time of initial observation because of the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important.

Once an illicit discharge has been reported or detected through an inspection, the next step is to locate the source. Selection of tracing techniques will depend on the type of illicit discharge detected, the information collected during initial discovery and observation (whether through an inspection by a municipal employee or through a

MINIMUM CONTROL MEASURE 3

citizen call-in), and the resources/technology available to the municipality. A single technique may be used or several techniques may need to be combined to identify the source of the discharge. There are three types of discharges: transitory, intermittent, and continuous. The investigative techniques used will depend on whether or not a potential source location was identified during the initial observation.

The investigative techniques used will depend on whether or not a potential source location was identified during the initial observation:

- a. Potential source identified: If a potential source for the illicit discharge was initially identified, steps should be taken to investigate the potential source site, such as inspecting the site and storm drain system in the vicinity of the site. If floor drains, sumps, or other suspect discharge locations are observed during this inspection, dye testing, smoke testing, electronic location of subsurface pipes, or televising may be used. These techniques should definitively show whether the suspect site was the source of the illicit discharge.
- b. Potential source not identified: If no source site is suspected, and only the general area of the illicit discharge is known, it may be possible to trace the evidence of the illicit discharge by visual inspection of the storm drain access points or some other methods. Methods for tracing illicit discharges are found in Appendix F.

3.2 Citizen Call-In Program

Activities and Definition

- a. A citizen call-in program is an effective way to identify illicit discharges. A citizen comment or complaint line will be publicized in the community. To maximize the effectiveness of citizen call-ins, dispatch personnel should be instructed to log all information into City on the use of the Illicit Discharge Hotline Incident Tracking Sheet in order to collect as much information as possible at the time of the report. Dispatch personnel should also be instructed as to where to direct the information gathered from the tracking sheet so that appropriate action is taken.
- b. The Program Manager should identify who should be trained, and where the call-in line will be publicized in the discussion column. Active websites and dedicated webmasters, an on-line forum could be incorporated into a stormwater page.

Preparation

- a. Have a system in place to receive phone calls and collect information regarding suspected illicit Discharges.

MINIMUM CONTROL MEASURE 3

Process

- a. Use an incident tracking sheet to collect the appropriate information from the caller. Then, transfer the incident tracking sheet to the proper authority (e.g., department head, stormwater specialist, construction inspector, code enforcement officer, or other assigned personnel). *In the City of Edina this is Laura Adler, Water Resources Coordinator.*
- b. Promptly investigate reported incidents.
- c. If an illicit discharge of unknown source is confirmed, follow the procedure of Tracing Illicit Discharges.
- d. If an illicit discharge known source is confirmed, follow the Removing Illicit Discharges procedure.

3.3 Tracking Illicit Discharges

- a. Developing a long-term tracking program can help Program Managers better understand the origins of illicit discharges and identify maintenance issues for the storm drain system structures. A tracking program will also facilitate evaluation of the overall IDDE program and will expedite annual reporting. An effective tracking program should address illicit discharge and maintenance issues resulting from the following:
 1. Citizen complaints
 2. Opportunistic inspections
 3. Regular longer term inspections
 4. Removal actions taken for illicit discharges
- b. Edina's City Works system can be modified to include all the fields on the Dry Weather Outfall Inspection Form. The advantage to this tracking program is that the database can be easily linked to GIS data. Linking to GIS data allows mapping of illicit discharge locations, citizen complaint locations, and many other IDDE issues. Table 1 contains simple attributes that can be used in the database.

MINIMUM CONTROL MEASURE 3

Table 1. Example Illicit Discharge Database Attributes

Date of Incident/ <u>Date Reported:</u>	<u>Report Initiated by:</u> Phone, drop-in, contact information (optional), etc.	<u>Location of Discharge:</u> If known - lat/long, stream address or outfall #, closest street address, nearby landmark, etc.	<u>Description of Discharge:</u> For example - dumping, wash water, suds, oil/solvents/chemicals, sewage, etc.	<u>Actions to be taken:</u> Who, What, Where, When, and How... (what should be done)	<u>Description of Resolution:</u> Outcome of actions taken and any necessary follow-up (what was done)	<u>Date Resolved</u>

3.4 Opportunistic Illicit Discharge Observation

Activities and Definition

Opportunistic illicit discharge observations are identified as a result of locating illicit discharges during routine City activities, which may include building inspections, system maintenance, etc.

Preparation

- a. Be alert for potential illicit discharges to the municipal stormwater system while going about normal work activities.

Process

- a. Call the appropriate authority (i.e. department head, stormwater specialist, construction inspector, code enforcement officer or a supervisor).
- b. Assess the general area of the illicit discharge to see if you can identify its source.
- c. Whenever possible, take photographs of the suspected illicit discharge.
- d. Responding stormwater department personnel or code enforcement officer will complete the following:
 1. Use the IDDE Incident Tracking Sheet to document observations.
 2. Obtain sample for visual observation and complete and Outfall Inspection Form, If applicable.
 3. Follow the procedure of IDDE – Tracing Illicit Discharges.
- e. Clean Up – If needed follow relevant written procedures.

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Documentation

- a. File all completed forms (i.e. Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and or Storm Drain Cleaning Log.)
- b. Document any further action taken.

3.5 Training

Activities and Definition

Training of City staff will be necessary so that they are aware of the importance of Illicit Discharge Detection and Elimination. This includes knowledge in identifying illicit discharges and procedures to report and document them.

The following list gives the yearly training required for departments and the people involved.

- a. MS4 engineers, development and plan review staff, land use planners:
Post-construction control requirements and associated BMPs.
- b. Field Staff:
Identification, investigation, termination, cleanup, and reporting of illicit discharges.
- c. Office Staff:
Illicit discharge reporting.
- d. Field and Other Staff:
Implementation of the construction stormwater program, including permitting, plan review, construction site inspections, and enforcement.
- e. All employees:
Employees who have primary construction, operation, or maintenance job functions that are likely to impact stormwater quality. O&M program including SOPs.

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Appendix A Definitions

MINIMUM CONTROL MEASURE 3

Definitions

Authorized Enforcement Agency: the City of Edina

Best Management Practices (BMPs): schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Construction Activity: Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of one acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illegal Discharge: Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in this ordinance.

Illicit Discharge Types:

Transitory illicit discharges: Typically one-time events resulting from spills, breaks, dumping, or accidents. Transitory illicit discharges are often reported to an authority through a citizen complaint line or following observation by a municipal employee during regular duties. Because they are not recurring, they are the most difficult to identify, trace, and remove. The best method to reduce transitory discharges is through general public education, education of municipal response personnel, tracking of discharge locations, and enforcement of an illicit discharge ordinance.

Intermittent illicit discharges: Occur occasionally over a period of time (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging anything other than groundwater. Intermittent discharges can also result from activities such as drum washing in exterior areas. These types of discharges are more likely to be discovered, and are less difficult to trace and remove, but can still present significant challenges. These discharges can have large or small impacts on waterbodies depending on pollutant content and the size of the receiving water body.

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Continuous illicit discharges: These are typically the result of a direct connection from a sanitary sewer, overflow from a malfunctioning septic system, inflow from a nearby subsurface sanitary sewer that is malfunctioning, or an illegal connection from a commercial or industrial facility. Continuous illicit discharges are usually easiest to trace and can have the greatest pollutant load (CWP 2004).

Illicit Connections: An illicit connection is defined as any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342 (b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual group, or general area-wide basis.

Non-Storm Water Discharge: Any discharge to the storm drain system that is not composed entirely of storm water.

Person: Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and action as either the owner or as the owner's agent.

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, pesticides, herbicides, and fertilizers; hazardous substances and wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Premises: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Storm Drain System: Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

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Storm Water: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Wastewater: Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

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Appendix B High Priority Areas



City of Edina, Minnesota

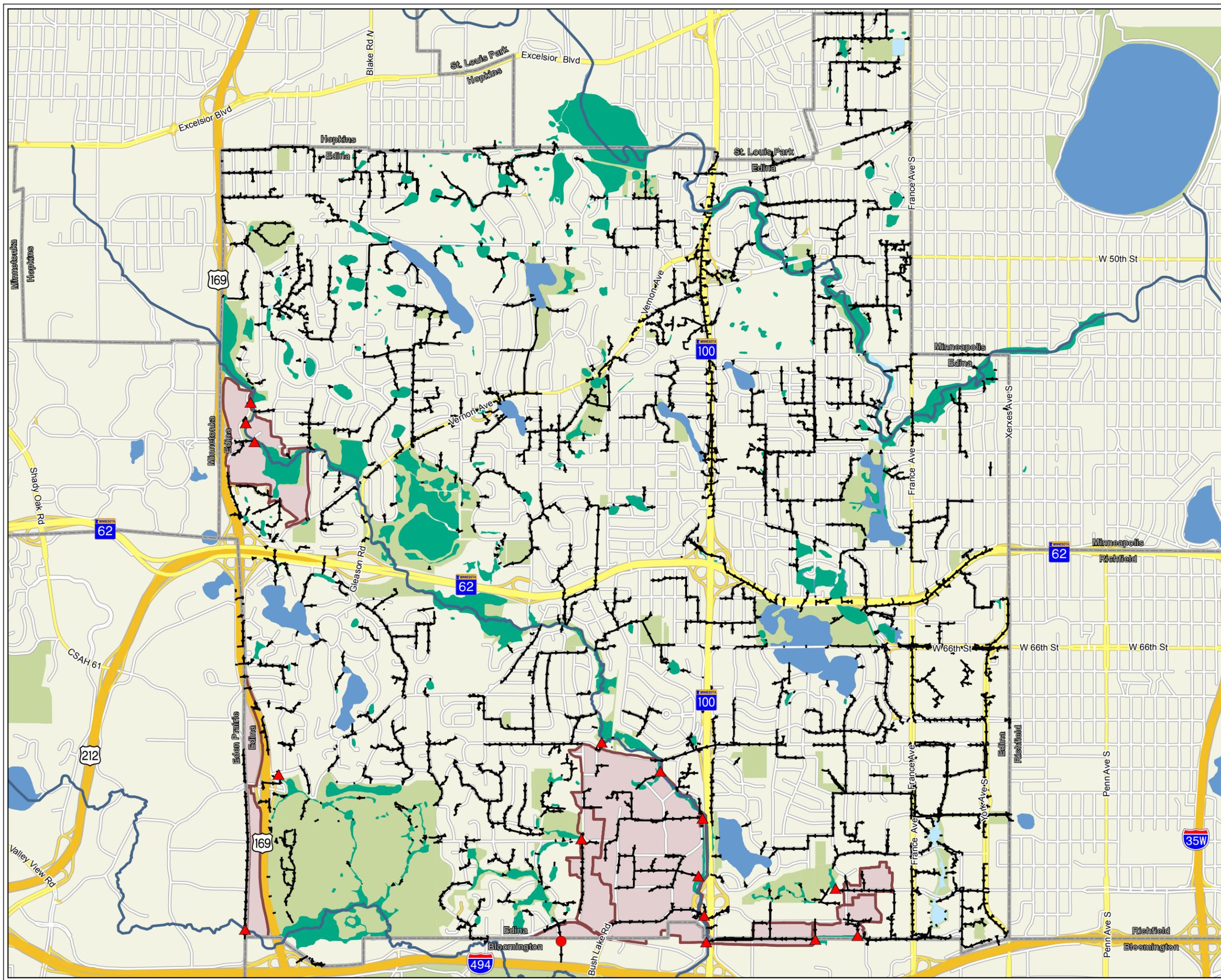
High Priority Illicit Discharge Evaluation Map

Legend

- High Priority Outfall**
 - ▲ Flared End
 - Manhole
- High Priority Watershed
- Storm Sewer Pipe
- DNR Public Waters
- Pond
- Wetland
- Lake
- Parks & Recreation
- City Boundary



0 2,500 5,000 Feet



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Appendix C Citizen Complaint Form

Illicit Discharge Hotline Incident Tracking Sheet

Incident ID:

Responder Information

Call taken by:

Call date:

Call time:

Precipitation (inches) in past 24-48 hrs:

Reporter Information

Incident time:

Incident date:

Caller contact information (*optional*):

Incident Location (*complete one or more below*)

Latitude and longitude:

Stream address or outfall #:

Closest street address:

Nearby landmark:

Primary Location Description

Secondary Location Description:

Stream corridor
(*In or adjacent to stream*)

Outfall

In-stream flow

Along banks

Upland area
(*Land not adjacent to stream*)

Near storm drain

Near other water source (storm water pond, wetland, etc.):

Narrative description of location:

Upland Problem Indicator Description

Dumping

Oil/solvents/chemicals

Sewage

Wash water, suds, etc.

Other: _____

Stream Corridor Problem Indicator Description

Odor: None Sewage Rancid/Sour Petroleum (gas)

Sulfide (rotten eggs); natural gas Other: Describe in "Narrative" section

Appearance: "Normal" Oil sheen Cloudy Suds

Other: Describe in "Narrative" section

Floatables: None: Sewage (toilet paper, etc) Algae Dead fish

Other: Describe in "Narrative" section

Narrative description of problem indicators:

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

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Appendix D Sample Ordinance

ORDINANCE NO.

CITY OF EDINA
COUNTY OF HENNEPIN
STATE OF MINNESOTA

**ILLCIT DISCHARGE AND CONNECTION
STORMWATER ORDINANCE**

The Edina City Council ordains as follows:

Sec. 35-1. Purpose/Intent.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City of Edina through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process.

The objectives of this ordinance are:

- (a) To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user.
- (b) To prohibit illicit connections and discharges to the municipal separate storm sewer system.
- (c) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance.

Sec. 35-2. Definitions.

For the purposes of this ordinance, the following shall mean:

Authorized Enforcement Agency: the City of Edina.

Best Management Practices (BMPs): schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Construction Activity: Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of one acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illegal Discharge: Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in this ordinance.

Illicit Connections: An illicit connection is defined as any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342 (b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual group, or general area-wide basis.

Non-Storm Water Discharge: Any discharge to the storm drain system that is not composed entirely of storm water.

Person: means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and action as either the owner or as the owner's agent.

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse,

rubbish, garbage, litter, or other discarded or abandoned objects, pesticides, herbicides, and fertilizers; hazardous substances and wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Premises: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Storm Drain System: Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Storm Water: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Wastewater: means any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Sec. 35-3. Applicability.

This ordinance shall apply to all water entering the storm drain system generated on any developed or undeveloped lands unless explicitly exempted by an authorized enforcement agency.

Sec. 35-4. Responsibility for Administration.

The authorized enforcement agency shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the authorized enforcement agency may be delegated in writing by the Director of the authorized enforcement agency to persons or entities acting in the beneficial interest of or in the employ of the agency.

Sec. 35-5. Severability.

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Ordinance.

Sec. 35-6. Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this ordinance and minimum standards; therefore this ordinance does not intend or imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

Sec. 35-7. Discharge Prohibitions.

(a) Prohibition of Illegal Discharges.

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

- (1) The following discharges are exempt from discharge prohibitions established by this ordinance: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, noncommercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if dechlorinated – typically less than one PPM chlorine), fire fighting activities, and any other water source not containing pollutants.
- (2) Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
- (3) Dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the time of the test.
- (4) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

(b) **Prohibition of Illicit Connections**

- (1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- (2) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of the connection.
- (3) A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

Sec. 35-5. Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse

Sec. 35-8. Suspension of MS4 Access.

- (a) **Suspension due to illicit discharges in emergency situations.**
The City Council may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.
- (b) **Suspension due to the detection of illicit discharge.**
Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The authorized enforcement agency will notify a violator of the proposed termination of its MS4 access. The violator may petition the authorized enforcement agency for reconsideration and a hearing. A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the authorized enforcement agency.

Sec. 35-9. Industrial or Construction Activity Discharges.

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the City Council prior to the allowing of discharges to the MS4.

Sec. 35-10. Monitoring of Discharges.

(a) Applicability.

This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

(b) Access to Facilities.

- (1) The authorized enforcement agency shall be permitted to enter and inspect facilities subject to regulation under this ordinance as often as may be necessary to determine compliance with this ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the authorized enforcement agency.
- (2) Facility operators shall allow the authorized enforcement agency ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.
- (3) The authorized enforcement agency shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's storm water discharge.
- (4) The authorized enforcement agency has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- (5) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the authorized enforcement agency and shall not be replaced. The costs of clearing such access shall be borne by the operator.

- (6) Unreasonable delays in allowing the authorized enforcement agency access to a permitted facility is a violation of a storm water discharge permit and of this ordinance. A person who is the operator of the facility with a NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the authorized enforcement agency reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this ordinance.
- (7) If the authorized enforcement agency has been refused access to any part of the premises from which stormwater is discharged, and the City is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction.

Sec. 35-11. Requirement to prevent, control, and reduce storm water pollutants by the use of best management practices.

The City will adopt requirements identifying Best Management Practices (BMPs) of any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliant with the provisions of this section. These BMPs shall be part of a storm water pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

Sec. 35-12. Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

Sec. 35-13. Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Sec. 35-14. Enforcement.

(a) Notice of Violation

Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the authorized enforcement agency may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- (1) The performance of monitoring, analysis, and reporting;
- (2) The elimination of illicit connections or discharges;
- (3) That violating discharges, practices, or operations shall cease and desist;
- (4) The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- (5) Payment of a fine to cover administrative and remediation costs;
- (6) The implementation of source control or treatment BMPs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated

governmental agency or a contractor and the expense thereof shall be charged to the violator.

Sec. 35-15. Enforcement Measures after Appeal.

If the violation had not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 15 days of the decision of the municipal authority upholding the decision of the authorized enforcement agency, then representatives of the authorized enforcement agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

Sec. 35-16. Cost of Abatement of the Violation.

Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 15 days. If the amount due is not paid within a timely manner as determined by the decision of the municipal authority, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. Any person violating any of the provisions of this article shall become liable to the City by reason of such violation.

Sec. 35-17. Injunctive Relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this ordinance. If a person has violated and continues to violate the provisions of this ordinance, the authorized enforcement agency may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

Sec. 35-18. Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the authorized enforcement agency may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

Sec. 35-19. Violations deemed a Public Nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil

action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

Sec. 35-20. Criminal Prosecution.

Any person that has violated or continues to violate this ordinance shall be liable to criminal prosecution to the fullest extent of the law, and shall be subject to a criminal penalty of \$1,000.00 dollars per violation per day and/or imprisonment for a period of time not to exceed 90 days. The authorized enforcement agency may recover all attorney's fees, court costs, and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.

This ordinance shall become effective following its passage and publication as required by law.

James Hovland, Mayor

ATTEST:

Scott Neal, City Administrator

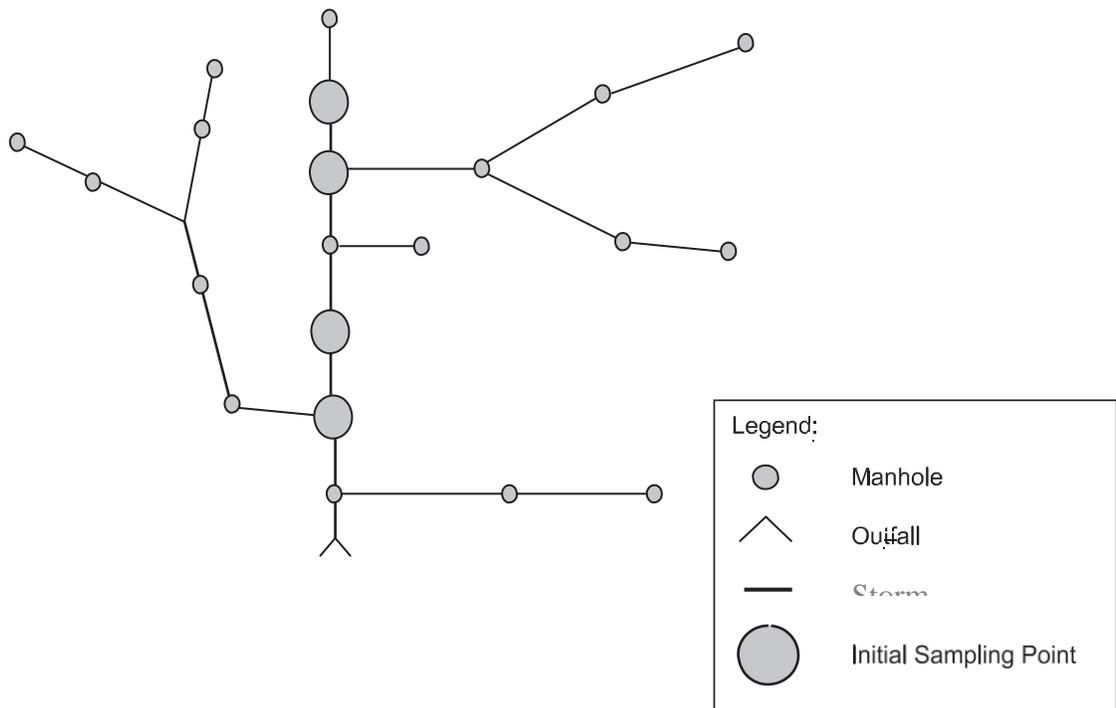
MINIMUM CONTROL MEASURE 3

Appendix E Tracing Techniques

MINIMUM CONTROL MEASURE 3

Tracing Techniques

- a. Visual Inspection at manholes/catch basins: This tracing technique is typically used when there is no suspected source site. It is the most cost effective and efficient method of tracing. Structures should be systematically inspected starting at the initial detection location, gradually working upstream through the system. If the crew is tracking a continuous discharge, the inspections may be relatively easy and the flow can be tracked back to its source. If the crew is attempting to track a transitory or intermittent discharge, the crew should make the following observations depending on the information provided from the initial identification: color and clarity of any discharges; staining or deposits on bottom of structure; oil sheen, scum, or foam on any standing fluids in sump of structure; odors, staining or deposits on inlet pipes and outlet pipes. Depending on what the crew is looking for and what they find, they will progressively inspect additional structures until either a potential source is found, or no further evidence is found. If no further evidence is found, the crew may elect to further assess some of the structures by installing sandbags or other damming devices to determine if the discharge recurs. Crews should use standard safety procedures when conducting these inspections such as cone placement and safety vests in traffic areas, confined space entry techniques (if entry is necessary), steel-toed boots, etc.



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- b. Sampling flowing discharges: Samples should be collected only in the event a discharge is flowing through the outfall. Stagnant pools of water or sump water should not be sampled. If the municipal staff will be collecting the sample, the staff should be trained in safety and proper collection techniques. Typical parameters to test for include:

- Ammonia
- Boron
- Chlorine
- Color
- Conductivity
- Detergents
- E. Coli
- Fluorescence
- Fluoride
- Hardness
- pH
- Potassium
- Surface Tension
- Surfactants
- Turbidity

More information on the reason for sampling of specific parameters can be found in the Center for Watershed Protection Illicit Discharge Detection and Elimination Manual (CWP 2004, Chapter 12).

Sampling and analysis for many of the compounds should be completed by personnel trained in collection, handling, and preservation techniques to ensure accurate data. EPA guidance recommends collecting a sample when the discharge is initially found and after any source is removed. The sample collected after removing an illicit discharge can indicate if other illicit discharges are present.

- c. Sandbagging or damming: Sandbagging and damming is typically only conducted when the discharge flow has ceased since initial detection. Application of this technique will show whether the discharge is one time only (no water pools behind the sandbag or dam) or intermittent (water pools behind the sandbag). CWP provides the following explanation:
1. This technique involves placement of sandbags or similar barriers such as caulk dams within strategic manholes in the storm drain network to form a temporary dam that collects any intermittent flows that may occur. Any flow collected behind the sandbag is then assessed using visual observations or by indicator sampling. Sandbags are lowered on a rope through the manhole to form a dam along the bottom of the storm drain, taking care not to fully block

MINIMUM CONTROL MEASURE 3

the pipe (in case it rains before the sandbag is retrieved). Sandbags are typically installed at junctions in the network to eliminate contributing branches from further consideration. If no flow collects behind the sandbag, the upstream pipe network can be ruled out as a source of the intermittent discharge. Sandbags are typically left in place for no more than 48 hours, and should only be installed when dry weather is forecast. Sandbags should not be left in place during a heavy rainstorm. They may cause a blockage in the storm drain or they may be washed downstream and lost. The biggest downside to sandbagging and damming is that it requires at least two trips to each manhole (CWP 2004, p. 157).

- d. Optical brightener monitoring traps: Optical brightener monitoring (OBM) traps can be used to trace intermittent or transitory discharges that result from washwater with detergent. Detergents usually contain optical brighteners that can be detected at high concentrations using this method. However, the traps only detect highly concentrated discharges. The detergent concentration required to be detected by the light is approximately the same as pure washwater from a washing machine. Consequently, OBM traps may be best suited as a simple indicator of the presence or absence of intermittent flow or to detect the most concentrated flows. The traps can be made using easily acquired materials.

The traps contain an absorbent, unbleached cotton pad or fabric swatch contained inside a wire mesh trap or section of small diameter (e.g., 2-inch) PVC pipe. The traps should be anchored to the inside of an outfall at the invert using wire or monofilament that is secured to the pipe itself. Rocks or bricks with holes can be used as temporary weights to hold the trap in place.

Field crews can retrieve the OBM traps after 24 to 72 hours of dry weather. OBM traps need to be retrieved before coming into contact with stormwater, which will contaminate the trap or wash it away. When placed under a long wave fluorescent ultraviolet or “black” light, an OBM trap will indicate if it has been exposed to detergents. CWP reports that OBM traps have been used with some success in Massachusetts (Sargeant et al. 1998) and northern Virginia (Waye 2000). For more detailed guidance on how to use OBM traps and interpret the results, see the Reference section for World Wide Web links to the studies and guidance manuals cited above.

- e. Dye testing: Dye testing is typically conducted when a potential source site has been identified, and the crew is trying to determine whether the site has floor drains or other locations that connect and discharge to the storm drain system. Permission to access the site must be obtained before dye testing can be conducted. Verbal or written requests are both acceptable. The crew should review available sanitary sewer and storm drain maps before conducting the dye testing. The dye testing procedure consists of two steps: (1) discharging the dye into the suspect location, and (2) opening nearby storm drain and sanitary sewer manhole covers to determine where the dye discharges to.

MINIMUM CONTROL MEASURE 3

This procedure is fairly effective for confirming direct connections into the storm drain system for short reaches. If a longer pipe network is being evaluated, charcoal packets can be left in selected structures and later collected and analyzed for the presence of the dye. If dye testing on porcelain structures, tablets or charcoal should be wrapped in tissue before depositing. When dye testing, the crew should keep in mind that each structure (sink, toilet, etc.) should be tested separately. Many times a single utility in a basement may be incorrectly connected to a storm drain line instead of a sanitary line.

- f. Televising: Televised video inspections are a useful technique when an illicit connection or infiltration from a nearby sanitary sewer is suspected, but little evidence of the illicit discharge remains behind. Two types of video cameras are available for use:
 - 1. A small camera that can be manually pushed on a stiff cable through storm drains to observe the interior of the piping, or
 - 2. A larger remote operated video camera on treads or wheels that can be guided through storm drains to view the interior of the pipe. Typically the operator of the camera has access to a keyboard or audio voice-over to record significant findings on the videotape that is produced for future review and evaluation.

- g. Smoke testing: Smoke testing is a useful technique for tracing intermittent discharges or continuous discharges that have no apparent source site. Smoke is introduced into the storm drain system, and emerges at locations that are connected to the system. Smoke testing works best for short reaches of pipe, or in situations where pipe diameters are too small for video testing.

Notifying the public about the date and purpose of smoke testing before starting is critical. The smoke used is non-toxic, but can cause respiratory irritation, which can be a problem for some residents. Residents should be notified at least two weeks prior to testing, and should be provided the following information (Hurco Technologies, Inc. 2003):

- 1. Date testing will occur
- 2. Reason for smoke testing
- 3. Precautions they can take to prevent smoke from entering their homes or businesses
- 4. What they need to do if smoke enters their home or business, and any health concerns associated with the smoke
- 5. A number residents can call to relay any particular health concerns (e.g., chronic respiratory problems)

STANDARD OPERATING PROCEDURES

Minimum Control Measure 4 & 5 Construction Site Erosion and Sediment Control Post-Construction Stormwater Management

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MINIMUM CONTROL MEASURE 4 and 5

1. INTRODUCTION

1.1. Basis for the Standard Operating Procedures (SOPs)

In August 1, 2013, the Minnesota Pollution Control Agency issued a National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 GP requires the City of Edina to develop written procedures for the purpose of eliminating pollutants associated with construction activity and due to new development and redevelopment on projects with land disturbance of greater than or equal to once acre, including projects that are less than one acre that are part of a common plan of development or sale.

This manual assists the City in meeting the Stormwater Phase II regulations, by incorporating guidance on the following:

- Plan review
- Training
- Inspections
- Long-term Operation and Maintenance

The Guidelines and Standard Operating Procedures Manual will help promote behavior to improve the water quality of the City of Edina's lakes, ponds, and creeks.

1.2. Objectives of the SOPs

This manual is intended to provide guidance on Construction Site Erosion and Sediment Control and Post-Construction Stormwater Management:

- Provide guidance regarding plan review procedures.
- Provide guidance to municipalities for prioritizing where construction site inspections may need to occur on a more frequent basis.
- Provide guidance to municipal staff on what to look for during construction inspections.
- Provide guidance to municipal staff regarding the construction of post-construction stormwater BMPs to help ensure their longevity.

2. PLAN REVIEW AND APPROVAL PROCESS

2.1. Plan Review

Activities and Definition

The City will review submitted plans to guarantee that erosion and sediment control standards and post-construction stormwater standards are met.

MINIMUM CONTROL MEASURE 4 and 5

Preparation

- a. Review City Code, Chapter 10 and Chapter 30, Comprehensive Water Resource Management Plan Policies 3.1.1, 3.1.2, and 3.2.2, the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District erosion control and stormwater rule, the MPCA Construction General Permit, and the MS4 post-construction stormwater standards.
- b. Reviews of submitted plans will utilize a check list to insure accuracy (Appendix A).

Process

- a. The City engineering and planning staff will review plans.
- b. A check list will be used to ensure accuracy of submitted plans.
- c. The City will defer to the Minnehaha Creek Watershed District and Nine Mile Creek Watershed District for enforcement of their stormwater rules.

Follow-up

When the applicant has made changes in accordance to the comments submitted, the plans will be reviewed again. Approval to the building department will not be given until the plans are satisfactory.

Documentation

- a. Keep logs of number of plan reviews per calendar year.
- b. Copies of plans, BMP quantities, and proposed BMPs will be forwarded to inspector or inspecting consultant.

2.2. Training

Activities and Definition

Appropriate City staff will be trained so that they are aware of the importance of good erosion and sediment control practices as well as techniques regarding the proper installation of post-construction stormwater BMPs. This includes knowledge in installation and inspection techniques as well as record keeping and maintenance activities. It is important for City staff to be able to recognize deficiencies in BMPs on construction sites. Inspection staff will be responsible for the tracking and enforcing permit requirements.

The employee training will provided through the City's internal training sessions, and a hands-on process to discuss the activities that are occurring in the field and how those activities can impact the City's MS4 program. Employees included in the internal training include plan review staff and building inspectors.

MINIMUM CONTROL MEASURE 4 and 5

2.3. Inspections

Activities and Definition

Construction site inspections will determine compliance with the City's regulatory mechanism(s).

Preparation

- a. Identify priority sites for inspection based on topography, soil characteristics, type of receiving water, stage of construction, compliance history, weather conditions, or other local characteristics and issues.
- b. Ensure staff has proper training pertaining to Erosion and Sediment Control techniques and Post-Construction Stormwater BMPs.

Process

- a. Identify sites that require an erosion and sediment control inspection.
- b. Perform inspection using the erosion control inspection check list (Appendix B) or equivalent City Works check list.
- c. Document construction activities permitted through the City and follow up with site owner/permittee about findings from inspection. If feasible, prior to leaving the site talk to the responsible person to ensure corrections can be made in a timely fashion.
- d. Perform a follow up inspection of site if deficiencies are found during initial inspection. Ensure that correction items have been completed.
- e. Failure to comply with the permit requirements may require initiating enforcement action as described in the City's Enforcement Response Procedures (ERPs) as follows:
 - 1) Notice of Violations
 - 2) Stop Work Orders
 - 3) Coordination of Enforcement through Watershed Partnership

Documentation

- a. Keep logs of number of inspections.
- b. Keep records of inspection reports and reports sent.
- c. Keep records of escalation of penalties.
 1. Verbal Warnings
 2. Notice of Violations
 3. Stop Work Orders

MINIMUM CONTROL MEASURE 4 and 5

2.4. City Projects Erosion and Sediment Control BMPs

Activities and Definition

City projects that will disturb any amount of soil will use proper erosion and sediment control BMPs.

Preparation

- a. Ensure BMPs are available for City projects including: inlet protection, perimeter control, temporary and permanent stabilization methods.
- b. Ensure staff has proper training pertaining to Erosion and Sediment Control techniques.

Process

- a. Construction projects that have the potential to impact the MS4 system or any natural resource will have BMPs available prior to construction activity.
- b. Install down gradient perimeter control where needed on the site.
- c. Protect adjacent inlets and outlets, if necessary to prevent sediment and debris from discharging into the storm sewer.
- d. Stabilize all exposed soil areas upon completion of work. If work is not complete, temporary stabilization methods will be used.
- e. After work is complete, clean out any sediment that might have entered the MS4 system.

Documentation

- a. Keep logs showing the BMPs were inspected and properly maintained during the active construction period until the period where final stabilization has been achieved.
- b. Sites should be inspected weekly or after a rainfall event greater than 0.5 inches in 24 hours where the soil disturbance is 1 acre or greater.
- c. If applicable, record the amount of waste collected, the number of catch basins cleaned, and the area they were cleaned in. Keep any notes or comments of any problems.
- d. If applicable, document the final location of where the material was disposed and any paperwork received from the disposal location.

2.5. Private Projects

Activities and Definition

Private projects that require a building permit, demolition permit, grading/excavation, and tree removal permit will use proper erosion and sediment control BMPs. Depending

MINIMUM CONTROL MEASURE 4 and 5

on the proposed improvements these sites may also be required to install BMPs for post-construction stormwater management. Building officials will be responsible for inspection building permit activities.

The Minnehaha Creek Watershed District and Nine Mile Creek Watershed District require an erosion control permit for the following activities:

- $\geq 5,000$ sq. ft. disturbance
- ≥ 50 c.y. grading, excavation, filling or storing of soil or earth material

The Minnehaha Creek Watershed District has staff that actively inspects construction sites throughout the entire district. In an effort to inspect priority sites more often the City may contact the watershed to identify sites where the City could use their attendance. The City will also oversee the installation of BMPs for post-construction stormwater management.

Process

Employee qualified City employee will inspect any permitted private projects within the City limits. Inspections will occur at a frequency that is commensurate of the activities taking place. The field inspector should use the field inspection checklist for guidance (Appendix B) and the inspection form (Appendix C) or equivalent City Works check list. Using a standardized checklist for inspections will create consistency among all inspectors.

Documentation

- a. Keep logs of number of inspections.
- b. Keep records of inspection reports and reports sent.
- c. Keep records of escalation of penalties.
 1. Verbal warnings
 2. Notice of Violation
 3. Stop Work Orders

2.6. Private Projects Long-Term Operation and Maintenance

Activities and Definition

The watershed districts require maintenance plans, recorded on the deed of the property, are required for all BMPs installed for the purpose of meeting the post-construction stormwater management standard.

Preparation

- a. Establish a partnership with the watersheds for ensuring maintenance of post-construction stormwater BMPs on private facilities.

MINIMUM CONTROL MEASURE 4 and 5

- b. Develop a questionnaire for owners of post-construction stormwater BMPs.

Process

- a. Once during each permit cycle request applicants to fill out and return the questionnaire.
- b. Defer all applicants that do not return their questionnaire to the watersheds for enforcement.

Documentation

- c. Obtain as-built plans for all public and private post-construction stormwater BMPs that are installed within the City.
- d. Continue to update the GIS system to include all public and private storm sewer and post-construction stormwater BMPs installed within the City.

STANDARD OPERATING PROCEDURES

Appendix A Plan Review Checklist



City of Edina Site Plan Review

Address:		Permit No:	
PID:		Date Approved:	
Date Received:		Signature:	
Site Size (acres):		Area of Disturbance(acres):	
Existing Impervious (acres):		Proposed Impervious (acres):	

Submittals Received

Date	Document	Author

General Site Plan

- Scale of Survey. Minimum scale 1"=50'. Maximum size plan sheet 24"X36"
- Survey signed by a registered survey with elevations in NGVD-1929 datum for the following locations:
 - Each lot corner.
 - Grade elevation at the foundation and elevation of top of foundation of structures on adjacent lots.
 - Grade elevation at the foundation, elevation of top of foundation and garage floor of proposed new construction.
 - Lowest point of entry (i.e. door sill or top of window well) of proposed and existing construction.
 - Lowest floor of proposed and existing construction.
- Any proposed retaining wall must have a top and bottom elevation and bottom elevation would be finish grade. Also, no retaining wall is allowed to be built on private property.
- Retaining walls greater than 4.0 feet in height have been designed and certified by a licensed professional engineer.
- Easements are clear of any encroachments?
- New curb cuts proposed? If new curb cut is proposed, stamp all survey maps with the curb cut stamp. Also, write a note on the Residential Plan & Routing Approval form reminding the builder that a curb cut permit is required if the driveway is moved or a new driveway is added.
- Low floor a minimum of 4.25' (feet) above the sanitary sewer invert elevation.

Comments:

Erosion Control Plan

- SWPPP notes provided on the plan.
- Temporary stabilization measures provided.
- Erosion control blankets provided on all slopes greater than 3:1.
- Perimeter Control i.e., Silt Fence, Filter Log, etc.
- Phasing for sites that are ≥ 1 acre.
- CB Inlet Protection
- Dewatering
- Sediment control
- Waste control
- Concrete washout
- Rock entrance
- Street sweeping schedule
- Permanent restoration plan.
- SWPPP includes an erosion and sediment control inspection schedule and person responsible for maintenance.

Comments:

Stormwater Management Plan

- Delineation map
- Modeling calculations for existing and proposed conditions
 - 2, 10, 100, Snowmelt
 - Modeled direct connected impervious separate
- Off-site drainage included
- Wetlands shown on plans and wetland permitting completed
- Pretreatment
- Skimmer structures provided on the outlets of all ponds.
- Soil borings
 - Design Infiltration Rate Determination
 - Seasonal High Water Elevation

Comments:

Water Quality

- Volume control provided as per the Nine Mile Creek Watershed District or Minnehaha Creek Watershed District.
- Sequencing provided for alternatives where infiltration is infeasible.

Required Water Quality Volume: _____

Provided Water Quality Volume: _____

Comments:

Rate Control

- Peak Discharge Rates < Existing

Comments:

Freeboard

Building Opening:

- 2' above the critical 100-yr HWL of local basins, wetlands, & infiltration basins
- 2' above EOF of local basins, wetlands, & infiltration basins
- 2' above the 100-yr flow elevation of a swale or channel at the point where the swale channel is closest to the building

Low Floor Elevation:

- 2' above the critical 100-yr HWL of major basins
- 2' above EOF of major basins
- For landlocked basins: 2' above the HWL from back to back 100-yr rainfalls or 2' above the HWL from the 100-yr 10-day snowmelt, whichever is higher. Starting elevation of the basin/waterbody prior to runoff is one of the following:
 - 1) Existing Ordinary High Water level established by the Minnesota Department of Natural Resources
 - 2) Annual water balance calculation approved by the City
 - 3) Local observation well records, as approved by the City
 - 4) Mottled soil

Comments:

STANDARD OPERATING PROCEDURES

Appendix B Field Inspection Checklist

Field Inspection Checklist

Concrete Washout:

- Is there a dedicated, contained, and maintained area for concrete washout?

Conformance to the permitted/approved plan set:

- Is the project following the permitted/approved plan set?
- Are field changes documented on the plan set and properly communicated to the necessary regulatory agencies?

Conformance to approved construction sequencing/phasing:

- Is the project following the accepted/approved construction sequence?
- Is phasing of the project being conducted to minimize disturbance?

Erosion Control Inspector (ECI):

- Does the site require an ECI?
- Is the ECI maintaining a routine inspection schedule, weekly and after all 0.5" rain events?
- Is the ECI inspection log on site and readily available?
- Are current site conditions representative of the latest ECI inspection report?
- Do the ECI inspection reports and SWPPP adequately cover recommendations for corrective measures?
- Are the ECI reports indicative of a thorough and competent inspection?

Detention facility plantings:

- Is native vegetation planted in all permitted areas?
- Is the vegetation established to a reasonable level?
- Has permanent stabilization of the detention basin been achieved, i.e. 90% areal coverage?
- Is erosion control blanket installed correctly, i.e. up and down the slope?

Detention facility emergency overflow location and construction:

- Is the emergency overflow constructed to the size/shape/location/elevation of the permitted/approved plan set?
- Is the emergency overflow effectively armored (C350, rip-rap, etc.), per the permitted/approved plan set, to resist scouring or undermining due to high volume/high velocity flows?

Dewatering:

- Is dewatering directly entering a waterway or wetland?
- Are dewatering activities conveying sediment laden water?
- Are appropriate dewatering BMP's in place and functioning effectively?

- If a sediment bag is being used, is it capturing sediment effectively?

Ditch checks:

- Are ditch checks installed at all locations shown on the permitted plans?
- Are ditch checks installed properly? (i.e., is spacing correct? Anchored correctly?)
- What types of ditch checks are installed?
 - Rock check dams?
 - Triangle silt dikes?
- Are straw bales or silt fence being improperly used as ditch checks?

Dust control:

- Are dust control measures being used as needed?
- Is dust observed moving offsite due to wind?
- Are roadways being swept or swept and vacuumed when needed?

STANDARD OPERATING PROCEDURES

Appendix C Inspection Form



Erosion and Sediment Control Inspection Report

Site Name:		Permit No.:
Owner:	Contractor:	Current Weather:
Date/Time Inspected:	Inspector:	

1. Site Management:	Acceptable/Repairs Required/ NA
Street and curb/gutter free of sediment?	
Construction entrances installed and functioning?	
Inlets/pipes, adjacent property, or receiving waters free of sediment from construction site?	

Corrective Actions:

2. Erosion Prevention Practices	Acceptable/Repairs Required/ NA
Exposed soil areas provided with temporary/permanent protection (i.e. mulch, sod)?	
Mulch evenly spread to 90% coverage?	
Ditches stabilized properly?	
Blanket installed properly?	

Corrective Actions:

3. Sediment Control Practices	Acceptable/Repairs Required/ NA
Installed where specified or indicated on plans?	
Installed correctly? (compacted, trenched)	
No blow-outs, pushed-over, or destroyed sections?	
No sediment removal needed? (1/3 capacity needs maintenance)	

Temporary Sediment Basins Installed? (Common drainage \geq 10 acres or \geq 5 acres in impaired watershed)

Corrective Actions:

4. Surface Waters	Acceptable/Repairs Required/ NA
Free of sediment plumes or highly turbid waters?	
Stormwater pond slopes in good shape?	
Last 200ft. of drainage ditch/swale stabilized within 24hrs?	

Corrective Actions:

5. Inlet Protection	Acceptable/Repairs Required/ NA
Curb and gutter inlet protection in-place? Maintained? Appropriate for phase?	
Drop structure inlet protection in-place? Maintained? Appropriate for phase?	
Culvert inlet protection in-place? Maintained? Appropriate for phase?	
Inlet protection removed after stabilization of catchment area?	

Corrective Actions:

6. Pollution Prevention	Acceptable/Repairs Required/ NA
Construction site wastes (debris, trash, brush, etc) stored / recycled appropriately?	
Concrete washout in-place and maintained?	
Dust controlled?	
Dewatering activities using appropriate BMPs to not cause nuisance conditions?	

Corrective Actions:

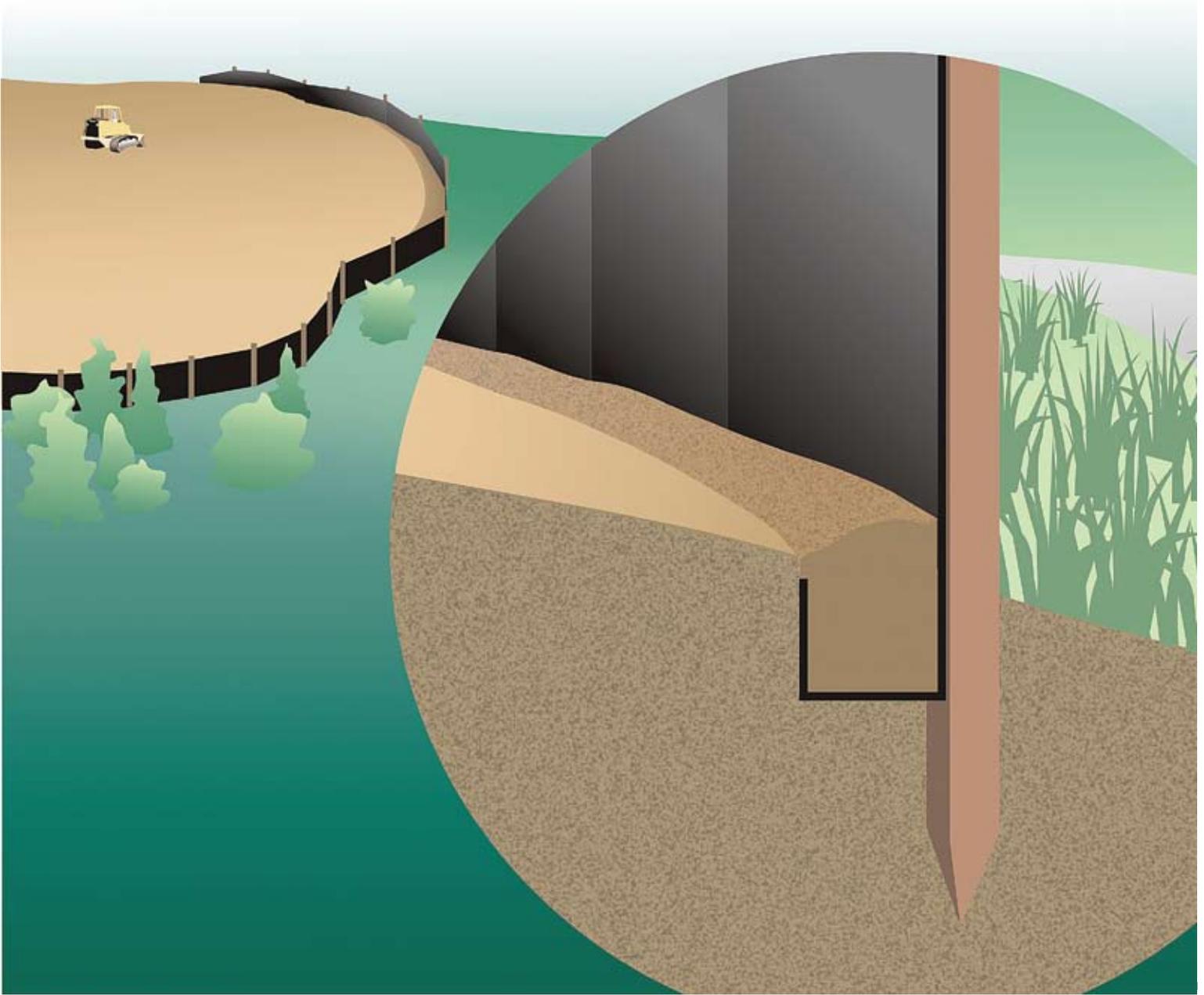
Maintenance Completed from Prior Inspections

STANDARD OPERATING PROCEDURES

Appendix D Sample Ordinances

STANDARD OPERATING PROCEDURES

Appendix E Erosion and Sediment Control Guidance



Stormwater Construction Inspection Guide



Minnesota Pollution Control Agency

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Comments welcome

This is the first edition of the *Inspection Guide*. We welcome comments and suggestions on how it might be changed in future editions to better assist stormwater inspectors. Send comments to:

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Chapter 1

Introduction

Purpose of this Inspection Guide

This stormwater construction inspection guide is designed to assist construction site inspectors, such as staff representing various local units of government, in the procedures for conducting a compliance inspection at construction sites. The focus of this guide is on inspecting construction sites less than five disturbed acres; however, the principles of this inspection guide can be applied to construction sites of any size.

After a brief overview of the Minnesota Pollution Control Agency (MPCA) construction stormwater permit, this inspection guide covers three main topics: How to conduct a stormwater inspection, tips on inspecting BMPs, and information about referring enforcement cases to the MPCA.

Construction Stormwater Permit Overview

The MPCA issued the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Stormwater Permit for Construction Activity in August 2008. Owners and operators of construction activity disturbing one acre or more of land need to obtain the construction stormwater permit. Sites disturbing less than one acre within a larger common plan of development or sale that is more than one acre also need permit coverage.

Regulated parties are required to develop a stormwater pollution prevention plan (SWPPP) and submit a completed application and a \$400 application fee. Applications and other forms are available by calling 651-296-6300 and asking for “Construction Stormwater” or visiting www.pca.state.mn.us/water/stormwater/stormwater-c.html.

What is a “larger common plan of development or sale?”

A common plan of development or sale means a contiguous area where multiple separate and distinct construction activities are occurring under one overall plan (e.g., the operator is building on three half-acre lots in a 6-acre development). The “plan” in a common plan of development or sale is broadly defined as any announcement or documentation or physical demarcation indicating that construction activities may occur on a specific plot.

In addition to developing the SWPPP, regulated parties must implement the SWPPP, conduct regular inspections, and maintain best management practices (BMPs). Inspections are required once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. The next inspection must

What are “special waters?”

Additional requirements apply to construction sites that discharge within one (1) mile of a special water. These waters can include:

- Wilderness areas (such as the Boundary Waters Canoe Area Wilderness, Voyageurs National Park, and parts of Kettle River and Rum River)
- Mississippi River (portions of)
- Scenic or recreational river segments (such as the Saint Croix River and Cannon River)
- Lake Superior
- Lake Trout lakes
- Trout lakes
- Scientific and natural areas
- Trout streams

(See Appendix A, Part B of the construction stormwater permit for more information or use the Special Waters Search tool on the MPCA construction stormwater Web page)

be conducted within seven (7) days after that. At the end of the project, after all disturbed surfaces are stabilized, the regulated party must submit a notice of termination/permit modification form to let the MPCA know that the construction activity is complete.

For most sites, construction may begin seven days after the application is postmarked. For sites that are more than 50 acres and discharging to outstanding natural resource value waters or impaired waters, the SWPPP and application materials must be submitted at least 30 days prior to commencing construction.

Changes in Owner/Operator

When the owner or operator or a portion of a site or entire site changes, the former owner or operator and the new owner or operator needs to submit a Notice of Termination/Permit Modification to the MPCA. The form is available on the MPCA construction stormwater

Web site and must be submitted within seven days of assuming operational control of the site, commencing work on their portion of the site, or of the legal transfer, sale or closing on the property.

For stormwater discharges from construction activities where the owner or operator changes, the new owner or operator can implement the original SWPPP created for the project or develop and implement their own SWPPP. Permittee(s) shall ensure either directly or through coordination with other permittee(s) that their SWPPP meets all terms and conditions of the permit and that their activities do not render another party’s erosion prevention and sediment control BMPs ineffective.

Additional information on the MPCA’s Stormwater Program is available on the Web at www.pca.state.mn.us/water/stormwater.

How to Conduct a Stormwater Inspection

Construction Site Inspector: Role and Responsibilities

The inspector determines compliance with permit conditions, applicable regulations, and other requirements and assesses the adequacy of best management practices to protect natural resources. This is primarily accomplished by reviewing on-site activities for permit compliance and the construction operator’s SWPPP.

Legal responsibilities

Part V.H of the Construction Stormwater Permit provides inspectors the authority to inspect construction sites. This section of the permit requires the construction operator to “allow representatives of the MPCA or any member, employee or agent thereof, when authorized by it, upon presentation of credentials, to enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations.” An inspector’s first responsibility is to be familiar with the specific requirements in the general permit, and applicable regulations. Inspectors must always have and display their inspection credentials.

Professional Responsibilities

Inspectors are expected to perform their duties with a high degree of professionalism. Facts are to be noted and reported completely, accurately and objectively. Inspectors should also be tactful, courteous and diplomatic when working with construction operators and other members of the public. During an inspection, inspectors should not speak derogatorily of any product, manufacturer or person.

When problems are found that are not significant, inspectors should provide technical assistance on approaches for dealing with minor issues that do not warrant a violation notice. This could include minor issues that, if not corrected, could lead to a violation. Technical assistance refers to providing general guidance on how to solve erosion and sediment control problems without providing specific design details. In other words, the inspector does not provide engineering advice.

Inspection Procedures

An on-site construction site inspection will typically consist of the following components, followed by the development of an inspection report:

- Pre-Inspection Preparation
- Entry
- Records Review
- Site Inspection
- Exit Interview

Pre-Inspection Preparation

Plan your inspections by targeting construction sites in priority areas (i.e., sites discharging to special waters, sites near surface waters, areas undergoing rapid development), large construction sites, or sites with a history of compliance problems. Be flexible, and plan your inspections immediately prior to or during anticipated rain events, or immediately following actual rain events (this is the best time to conduct stormwater inspections!). Identify more inspection candidate sites than you can visit in a day so you have back-up sites in case changes occur.

Always keep safety in mind!

- Use safety equipment such as hard hats, reflective vests, and steel-toed shoes.
- Maintain safety equipment in good condition and proper working order.
- Watch where you are walking, and be careful of what is going on overhead.
- Never enter confined spaces, such as a ditch or manhole, unless properly trained, equipped, and certified.

In preparing for an inspection, also review available files such as permits, copies of SWPPPs or erosion and sediment control plans, past inspection reports, downstream water quality problems from monitoring/assessment reports, and other correspondence such as maintenance records on the construction sites you will be inspecting. Copy relevant information that may be useful in the field. This could include past inspection reports in order to verify that problems have been corrected. Use the special waters search on the MPCA Web site to determine whether any of the construction sites you

plan to visit are located near special waters or impaired waters. Discharges to special waters, wetlands, and impaired waters have additional requirements that are described in Appendix A of the permit.

Find all the construction sites you'll be inspecting on a map to plan out your day. Group inspections by geographic area when possible to minimize your drive time.

Finally, be prepared for the inspection. Dress for the weather and take appropriate safety gear. Make sure you have the following: inspection credentials, digital camera, copies of inspection forms, copy of the general permit, logbook for taking notes, and personal protective equipment (steel-toed shoes, hard hat, safety vest). Always take extra copies of materials such as the general permit, inspection forms, and application forms.

Entry

Before entering the construction site, observe the surroundings and various stages of construction. Note areas for in-depth review and any clear violations. This is also a good time to view construction site vehicle exit locations and perimeter controls. Indicate on the inspection form the date/time and weather conditions (e.g., light rain, sunny, some rain in previous 24 hours).

When entering the site, review all postings and then ask for the owner or contractor whose name is on the application. If these people are not available, ask to speak with someone who is familiar with the construction site's SWPPP. Always note the names of the individuals with whom you meet. Present your credentials and explain the purpose of your inspection. Inform the individual of the typical sequence of events for the inspection (introductions, file review, site tour, exit interview, report preparation, delivery and follow-up). Ensure that the construction operator participates during the records review and accompanies you during the inspection. Ask if there are any specific safety issues or requirements for this site.

Records Review

Ask to see a copy of their SWPPP and application for coverage under the general stormwater permit, including a copy of all construction site inspections (i.e. the weekly inspections owners/operators are required to make weekly as well as within 24 hours of a rain event greater than 0.5 inches in a 24-hour period).

Review the SWPPP to ensure it addresses all the requirements in the permit. Specific items in the SWPPP to review and record in your notes include:

- The most recent date of the SWPPP, and who prepared it.
- Primary erosion prevention and sediment control BMPs used on-site.
- Inspection and maintenance records, which are required to be kept with the SWPPP. Operator is required to inspect the site once every seven days and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.
- Permanent stormwater management practices.
- Pollution prevention practices (especially for fueling, solid waste, hazardous materials, and vehicle washing).
- Discharge points from the project to surface waters and wetlands.

What if the site does not have a permit?

If a construction site disturbing more than one acre has not applied for the stormwater permit, notify your Regional MPCA construction contact. Explain to the site representative the requirement to apply for a stormwater permit, continue the inspection, and leave compliance assistance materials such as a copy of the permit and application. Note the violation on the inspection form.

What to do if denied entry?

Stay calm and explain that the permit provides the MPCA and MPCA representatives with the authority to conduct inspections. Inquire as to why you are denied entry and record this information in your notes. Explain that you will need this information so that you can accurately portray their reasons for denial to your supervisor. Evaluate what they said were their reasons and determine if there are ways you can mitigate their concerns. Many times their concerns are unfounded. In no case should you threaten or indicate that their denial may lead to future punitive penalties.

Include in your notes a general narrative of the construction activity (e.g., construction of five single family homes on 2.5 acre parcel). Ask the construction operator to describe the project as you review the SWPPP. Questions you can ask include:

- How large is the project, how long has construction been underway, and when do you plan to complete construction?
- Do you store or use hazardous materials or waste fluids on-site? Do you refuel vehicles or equipment on-site?
- Does this project include concrete pouring, and how do you handle washout of concrete trucks?
- Does the project have a rain gage, and how do you track rainfall amounts?
- What procedures do you institute in advance of forecasted rain events?
- Where are the critical areas of protection?
- Where is the construction draining to?

The SWPPP must include a narrative describing the timing for installation of all erosion prevention and sediment control BMPs. The SWPPP must also address phasing.

Ask for a copy of the site map and the BMP list to determine if it is specific to the construction site you're inspecting. The site map and BMP list can be marked up during your inspection to indicate locations of potential violations and as a reminder to ensure that BMPs are implemented. Remember that these items are enforceable and that the permit requires them to fully implement their SWPPP.

Remember SWPPPs are dynamic documents; they should be updated when (Part III.A.5):

- A change in design, construction, operation, maintenance, weather or seasonal conditions have a significant effect on stormwater discharges,
 - Inspections indicate the SWPPP is not effective, or
 - The SWPPP is not consistent with the terms of the permit.

The SWPPP must be on-site!

Part III.D of the permit requires that “the SWPPP (original or copy), all changes to it, and inspections and maintenance records must be kept at the site during construction by the Permittee who has operational control of that portion of the site.” The SWPPP can be kept in either the field office or in an on-site vehicle.

If the SWPPP is not available, ask why and note the response in your report. There are no legitimate excuses for not having stormwater paperwork on-site and available for review. Inform the construction operator that the permit requires the SWPPP to be on-site and available for review. If issues on-site indicate an in-depth review of the SWPPP is necessary, request that a copy of the SWPPP be submitted to the MPCA in the corrective actions.

Discuss with the site contact whether any amendments have been made to the SWPPP. The constantly changing conditions at a construction site (from rough grading to building construction) mean that the BMPs in the SWPPP must change as the site conditions change.

If their SWPPP is not available for review, this will make your inspection more difficult. Ask for a copy of a map of the construction site, if possible, and continue with your inspection. Note the lack of an on-site SWPPP on the inspection form.

Site Inspection

A keen eye, an understanding of the construction sequencing process and accurate documentation are the keys to an effective construction site inspection. Use the inspection form, and take notes regarding the location and condition of BMPs, discharge points, and inlets. Use photos to document concerns/violations and indicate on a rough diagram where the photos were taken. Keep a written log of preliminary findings during your inspection to facilitate your exit interview. Bring extra copies of relevant documents (such as the permit, application form, and construction stormwater permit overview fact sheet) to explain the requirements, and to leave for the construction operator if they need it.

Seasonal Considerations

During frozen ground conditions, construction activity may be suspended. BMPs must be in place; however, inspections may be suspended until runoff occurs at the site or when construction resumes. If possible, conduct inspections during the spring thaw period.

A note about construction activity:

Construction activity, by its very nature, is a “dirty” business. In many cases, land is cleared and graded to conform to the new site requirements. During a rain event, even the best-managed construction sites will look “muddy.” Your role as a construction inspector is to ensure that sediment and other pollutants in stormwater leaving the site do not impact waters of the state. Become familiar with typical construction practices, terminology, and conditions and use this experience during your inspection.

A recommended construction inspection sequence follows:

1. Plan your inspection

Review the site map and plan how you will conduct the inspection (this is particularly important for large construction sites). Identify the significant pollutant sources and BMPs you want to inspect (silt fence installation, sediment basins, slope stabilization, material storage areas, etc.). Consider the direction stormwater will flow as you plan the inspection. Begin your inspection at the low point on the construction site, observing all discharge points and walk up the slope to inspect the rest of the site. Consider the current sequence of construction phasing when planning your inspection.

2. Inspect discharge points and downstream, off-site areas for signs of impact

When inspecting discharge points from the site, if it appears that sediment is leaving the site, walk downstream to document the extent of travel and impact on receiving waters or storm drain systems. Make sure you walk “down the street” if necessary to inspect off-site areas for signs of discharge. This is particularly important in areas with existing curbs and gutters. Inspect down-slope municipal catch basin inlets to ensure that they are adequately protected. Note on the inspection form all environmental impacts and document with photographs when possible.

In some limited situations, it may be useful to collect samples of stormwater discharges from construction sites. Contact your MPCA Regional construction stormwater staff contact if you feel sampling may be useful in a specific situation.

3. *Inspect perimeter controls*

Note the type of perimeter controls installed at the site, and whether these have been properly installed and maintained. Inspect the construction exit to determine if there is excessive tracking of sediment from the site. Is street sweeping being used? If so, what is the frequency? Is there evidence of additional construction exits being used that are not in the SWPPP or are not stabilized?

Check all sediment controls. All storm drains must be protected, temporary stockpiles must have sediment controls and cannot be placed in surface water, including stormwater conveyances.

4. *Compare BMPs in the SWPPP with construction site conditions*

Are all BMPs required by the SWPPP in place? Are additional BMPs needed? Evaluate whether BMPs have been adequately installed and maintained (see Chapter 3 for more information on inspecting BMPs). Describe in your notes the potential violations and their location. Look for areas where BMPs are needed, but are missing and are not included in the SWPPP.

5. *Inspect disturbed areas not currently being worked*

Disturbed areas need to have temporary or permanent cover when they are not being actively worked. All exposed soil areas must be stabilized no later than 14 days, after the construction activity in that portion of the site has temporarily or permanently ceased. Note in the inspection report any unseeded and/or unmulched bare soils that have been dormant for two weeks or more.

6. *Inspect areas with final stabilization*

Inspect any stabilized areas to ensure that excessive erosion is not occurring. Estimate whether the site has been stabilized with uniform perennial vegetative cover with a density of 70 percent over the entire pervious area. Temporary BMPs in areas with final stabilization must be removed and sediment must be cleaned out of all conveyances and temporary sediment basins that will be used as permanent water quality management basins. Areas where temporary BMPs have been removed must be stabilized and seeded.

7. *Inspect wetted perimeter areas*

The normal wetted perimeters of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water. The remainder of the ditch must be stabilized within 14 days.

Guidance on inspecting individual BMPs is discussed in Chapter 3.

Common compliance problems at construction sites

The following compliance problems are commonly found at small construction sites. Keep these common problems in mind as you conduct inspections.

Problem #1 – No temporary or permanent cover

All exposed soil areas must be stabilized no later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Ask the contractor when particular exposed soils were last worked to help you determine if there is compliance.

Problem #2 – No sediment controls on site

The permit requires established sediment control practices (e.g., sediment traps/basins, down-gradient silt fences or sediment barriers, check dams, etc.) on down-gradient perimeters before up-gradient land disturbing activities begin.

Problem #3 – No sediment control for temporary stock piles

Temporary stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters (or curb and gutter systems).

Problem #4 – No inlet protection

All storm drain inlets that receive a discharge from the construction site must be protected before construction begins, and must be maintained until the site is stabilized. Inlet protection may be removed for a particular inlet if a specific safety concern has been identified. Written correspondence must be documented in the SWPPP or available within 72 hours upon request.

Problem #5 – No BMPs to minimize vehicle tracking on to the road

Vehicle exits must use BMPs such as stone pads, concrete or steel wash racks, or equivalent systems to prevent vehicle tracking of sediment.

Problem #6 – Sediment on the road

If BMPs are not adequately keeping sediment off the street, then the permit requires tracked sediment to be removed (e.g., street sweeping).

Problem #7 – Improper solid waste or hazardous materials management

Solid waste must be disposed of properly, and hazardous materials (including oil, gasoline, and paint) must be properly stored (which includes secondary containment).

Problem #8 – Dewatering at the construction site

Typically dewatering occurs where building footings are being constructed. Have measures been taken to ensure that the pumped discharge is not causing erosion? Is the discharge turbid and if so is it treated before discharging from the site? Has ditching been used to dewater and if so is that water resulting in the discharge of sediment and causing water quality impairments?

Problem #9 – Concrete washout

All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner.

Taking photographs

A digital camera is extremely useful during an inspection. Take digital photographs to document your findings and provide a site overview as you write your report. Take photos of the site entry sign, all potential violations, and a general view(s) of the construction site. Be certain to photograph impacts to waters of the state and try to document with photos that the construction project is the only source of the impact (not other upstream sources), so take shots above and below the project at the impacted waterbody. Remember that you do not need to incorporate all of the photos you take into your inspection report. Photograph model BMPs that could be useful as examples to other construction operators.

On the site map, indicate approximate locations of where you took photos, and the direction of the photograph. Keep notes for each photograph you take, as you need to describe the potential violation in your report.

When taking a photograph, make sure you keep perspective in mind. If the viewer will have difficulty understanding how large something is (for example, a rill/gully), then use a prop such as a person, hardhat or other object for perspective.

Exit Interview

Prior to conducting your exit interview, break away from the assembled group to gather your thoughts and prepare a list of preliminary findings. Review the inspection forms and determine the severity of any identified deficiencies. It is best to lead off your exit interview with one or more positive comments regarding the site and then list your negative findings in order of severity. Therefore, come up with a few positives examples of what they are doing right.

Debrief the person in charge. Explain that the results of the inspection are preliminary and are not final until all documents and photos have been reviewed and a supervisor has reviewed your report. Explain the identified deficiencies and any areas of concern (parts of SWPPP are missing, inspections are not being done, silt fence was down, etc.). Where possible, cite the section of the permit that requires these missing practices. While it is important that you provide a comprehensive site assessment, it is acceptable to indicate that you are uncertain about certain deficiencies/points and that additional review is required.

Leave copies of any compliance assistance information, such as the MPCA fact sheets “Overview of Minnesota’s NPDES/SDS Construction Stormwater Permit” or “Sediment and Erosion Control for New Homeowners.” Share information on permit compliance, and direct them to contact the MPCA office (contact phone numbers are noted on the bottom of the inspection forms), or explain how to obtain technical guidance materials.

Lastly, don’t tell the construction operator which BMP to use. Explain the problem or the permit requirement that must be met, and describe how other construction sites have addressed typical problems. It’s OK to tell the construction operator about what typically works and what doesn’t work in the field, but don’t specify the BMP to use (especially if it is a proprietary BMP). Ultimately, it is up to the construction operator to decide which BMPs to use.

Report Writing and Follow-up

Inspection reports consist of inspection forms, a site map and a photo log. If possible, complete all the relevant fields on the inspection forms and write your inspection report while you are still on the construction site. This will allow you to double check any observations and ask follow-up questions.

Remember that your inspection report is a legal document. Write legibly, accurately and objectively. Report all violations observed at the site, and always cite the section of the permit that was violated. Be careful not to include any information that you are unsure of (i.e., product names). The inspection report may be the first step in a compliance process that could reasonably be expected to be contentious. Factual errors in the report will bring the entire report and inspection into question, and will hurt the inspector's credibility. Therefore, if there is any doubt about the information, it should be left out.

When writing the description of violations, items that were stated to occur but were not observed should always be attributed to the construction operator or their representative. For example, the representative may state that the street is swept daily, but you do not know this as an observed fact.

Be consistent when writing your inspection reports. Identify potential violations in such a way that another inspector can take your report and locate the problem area easily. Be specific when you describe your observations. Don't write "a discharge was entering the storm drain" but rather "a discharge was entering the storm drain on the east side of the project below the construction entrance." As a rule, descriptions of potential violations should be in past tense, i.e., "the silt fence was installed without being toed in."

The photo log provides an important visual link between the written inspection report and the actual inspection. The photo log will also help determine the severity of potential violations. The inspection checklist should reference the photo log.

Photo log should include:

1. Size the photos so that the shortest side is 3.5 inches. Center the photos and captions on the page. Generally, a page will have two landscape oriented photos or one portrait. See Attachment A, page 28, for a sample photo log.
2. Include a photo(s) that illustrates general construction site conditions. A macro level shot provides insight into whether the site is generally in good shape or poorly maintained. For a site that is generally in compliance, the general construction site conditions photo may be the only picture in the log.
3. Provide photos for all potential violations. The photo serves as a record that the findings actually occurred and provides a means of comparing future site conditions with those on the day of inspection. Also, it's easier to resolve potential disputes with the construction operator if findings are documented with photographs.
4. Photo captions should briefly describe what is observed in the picture. Avoid references to the "normal" conditions in that area ("per the construction operator" statements); these are better discussed in the inspection report.

5. Check to make sure the construction site name and NPDES/SDS permit number match the inspection report. The best way to do this is to create a new photo log for each construction site; problems seem to arise when inspectors recycle photo logs by erasing the photos from one site and add those from another.

Save the photo log as the nine digit NPDES/SDS permit number followed by the facility name, or first word of a long facility name (i.e., C00012345 Acme.doc). The NPDES/SDS permit number is the unique value used to organize the photo logs with the reports and make sure that none are missing.

Chapter 3

Tips on Inspecting BMPs

Inspecting BMPs

The following BMPs are commonly implemented on small construction sites. Tips for inspecting these BMPs are described on the following pages. For more information on BMPs, see:

- Protecting Water Quality in Urban Areas: Best Management Practices for Dealing with Stormwater Runoff from Urban, Suburban and Developing Areas of Minnesota, Minnesota Pollution Control Agency, March 2000.
www.pca.state.mn.us/water/pubs/sw-bmpmanual.html.
- Minnesota Urban Small Sites BMP Manual: Stormwater Best Management Practices for Cold Climates, Metropolitan Council, 2001.
www.metrocouncil.org/environment/Watershed/bmp/manual.htm

Both manuals provide details on the standards and specifications for installing and maintaining these and other stormwater BMPs.

The BMPs are generally organized by the order an inspector will typically encounter them in the field when conducting an inspection.

The BMPs in this list were selected because they are commonly found on construction sites disturbing less than five acres of soil.

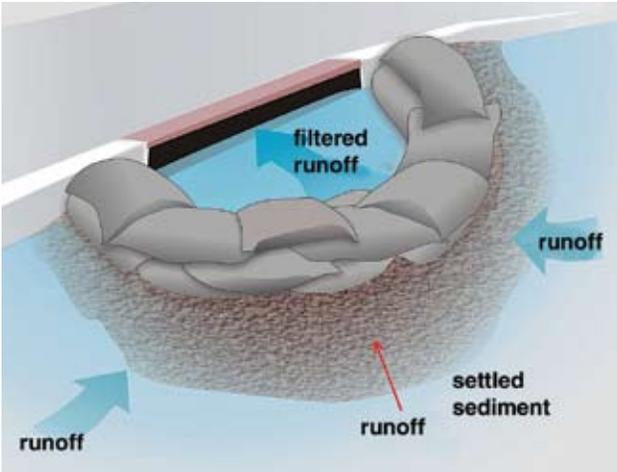


Figure 1. Sand or gravel bags can be used to filter stormwater runoff before entering a catch basin. Commercial products are also available that fit in front of or inside the catch basin.

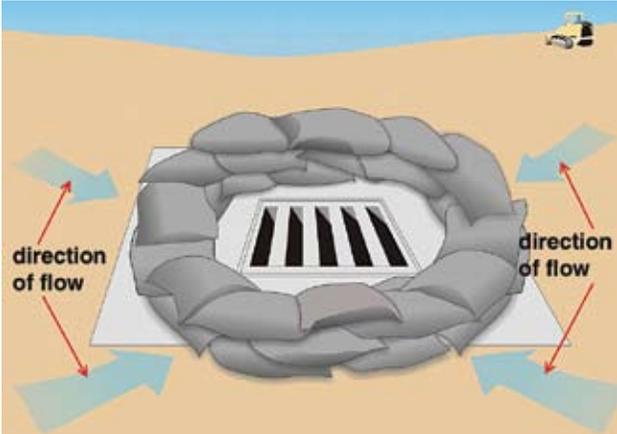


Figure 2. Sand or gravel bags used to protect a drop inlet.

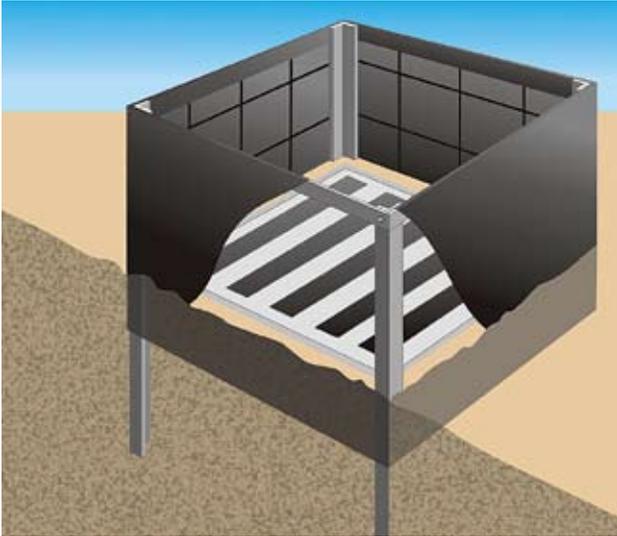


Figure 3. Silt fence can also be used to protect a drop inlet.

Storm drain inlet protection

Storm drain inlet protection prevents sediment from entering a storm drain by surrounding or covering the inlet with a filtering material. This allows sediment-laden runoff to pond and settle before entering the storm drain.

Several types of filters are commonly used for inlet protection: silt fence, sand bags or block and gravel. The type of filter used will depend on inlet type (curb inlet, drop inlet), slope, and amount of flow. Many different commercial inlet filters are also available. Some commercial inlet filters are placed in front of or on top of an inlet, others are placed inside the inlet and under the grate.

Permit requirements:

- All storm drain inlets must be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be removed if a specific safety concern has been identified and the Permittee(s) have received written correspondence from the jurisdictional authority (Part IV.C.4).
- All sediment control BMPs must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs. (Part IV.E.4).

Inspection tips:

- ✓ Inlet protection is a secondary BMP. Make sure that erosion controls or additional sediment controls are also in place.
- ✓ The inlet protection must not block the storm drain or cause flooding.
- ✓ Inlet protection must be in place immediately after storm drains are installed (or before land disturbance activities begin in an area with existing storm drains).
- ✓ Sediment accumulation must be removed after each storm event if it impedes flow through the filter.
- ✓ Make sure there are not any “gaps” allowing unfiltered stormwater to enter the inlet.

Stabilized construction exit

A rock construction exit can reduce the amount of sediment transported onto paved roads by vehicles. The construction exit does this by knocking mud off the vehicle tires before the vehicle enters a public road.

Permit requirements:

- Vehicle tracking of sediment from the construction site must be minimized by BMPs such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked onto the street (Part IV.C.6).
- Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all off-site paved surfaces within 24 hours of discovery, or if applicable, within a shorter time (Part IV.E.4.d).

Inspection tips:

- ✓ Is there evidence of sediment tracking from the site? (Street sweeping may be necessary if sediment tracking is evident).
- ✓ Is there evidence that vehicles are leaving the site from other locations, and not using the designated construction exits?
- ✓ Does the aggregate need to be replaced or replenished?
- ✓ Is the construction exit long enough to remove mud from the tires (50 ft. minimum)?
- ✓ Is the site graded away from the construction exit to prevent runoff from leaving the site?

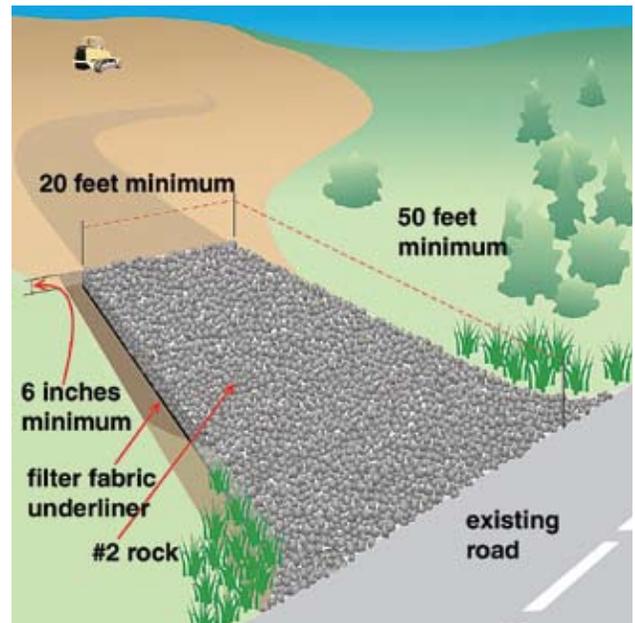


Figure 4. *Stabilized construction exit.*

Silt fence/other sediment barrier

A silt fence or sediment filter (such as a fiber roll or wattle) is a down-gradient barrier intended to intercept sheet flow runoff and settle out sediment upslope while allowing runoff to filter through.

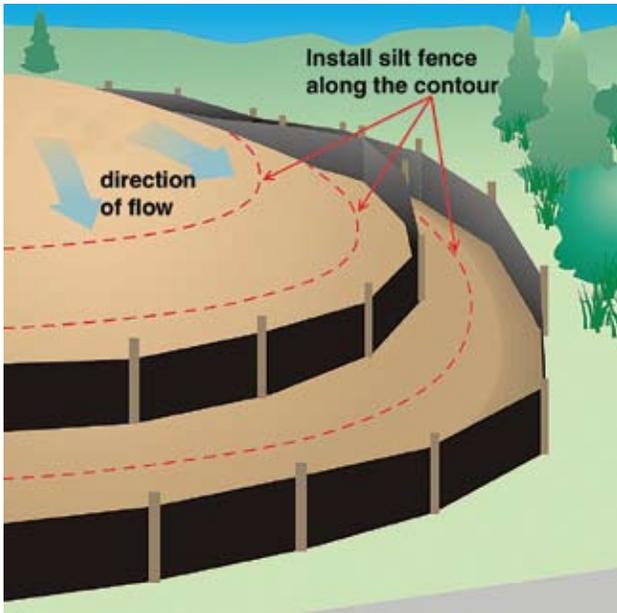


Figure 5. Illustration of silt fence installed along the contour.

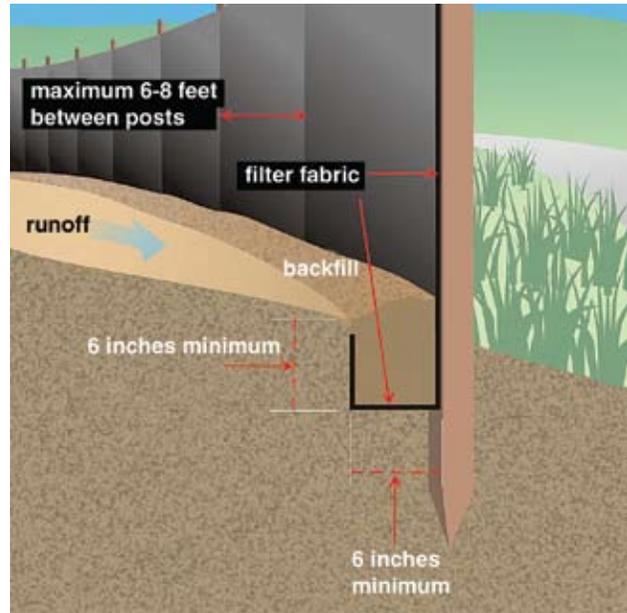


Figure 6. Detail of silt fence installation.



Figure 7. Illustration of "J-hooks" used during silt fence installation.

Permit requirements:

Sediment control practices must be established on all down-gradient perimeters before any upgradient land disturbing activities begin. These practices must remain in place until final stabilization has been established (Part IV.C.2). All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access (Part IV.E.4.a).

Inspection tips:

- ✓ Is the silt fence installed along the contour (on a level horizontal plane)?
- ✓ Are the ends turned up (J-hooks) to help pond the water behind the filter?
- ✓ Is the filter trenched-in with the stakes on the downhill side (trench must be 6 inches deep by 6 inches wide)?

- ✓ Has sediment been removed when it reaches 1/3 the height of the barrier?
- ✓ Sediment barriers should not be used as check dams or where concentrated flow is expected.

Key inspection area: Inadequate installation

- Soil should be compacted after trenching.
- The stakes used to hold the silt fence must be on the down-slope side.

Key inspection area: Improper placement

- A silt fence is not adequate protection for steep, long slopes. The drainage area must be no greater than ¼ acre per 100 feet of fence; i.e., silt fences must be spaced 60-110 ft. apart on long slopes.

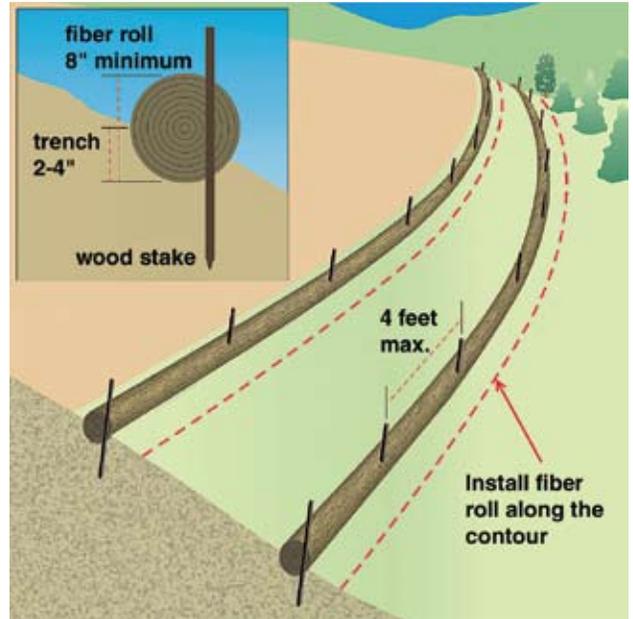


Figure 8. Fiber roll installation and detail.

Key inspection area: Maintenance

- Torn or degraded silt fence fabric must be replaced immediately.

Diversion ditches/berms

Diversion ditches or berms direct off-site runoff away from unprotected slopes or direct sediment-laden runoff to a sediment trapping structure. A diversion ditch can be located at the upslope side of a construction site to prevent surface runoff from entering the disturbed area. Ditches or berms on steeper slopes may need to consider erosive velocities. Also, ensure that the diverted water is released through a stable outlet and does not cause downstream flooding.

Inspection tips:

- ✓ Check to make sure the diversion discharges to a stable outlet or channel.
- ✓ Check to see if diversion ditches and berms have been seeded.
- ✓ Is the diversion eroding? (channel grades should be relatively flat).
- ✓ Check dams may be necessary if high velocity flows are present.

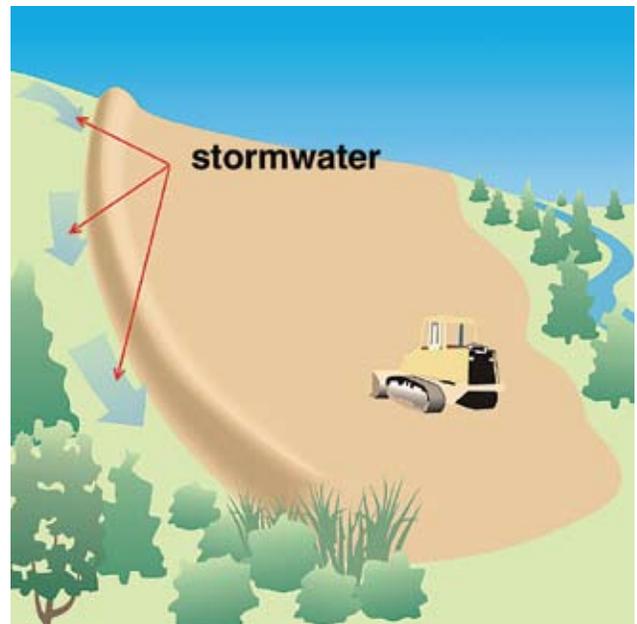


Figure 9. Diversions should be used to divert stormwater away from disturbed areas.

Mats, mulches, and blankets

Mats, mulches and blankets are used for temporary stabilization and establishing vegetation of disturbed soils. Mats and blankets are typically used on slopes or channels while mulches are effective in helping to protect the soil surface and foster the growth of vegetation.

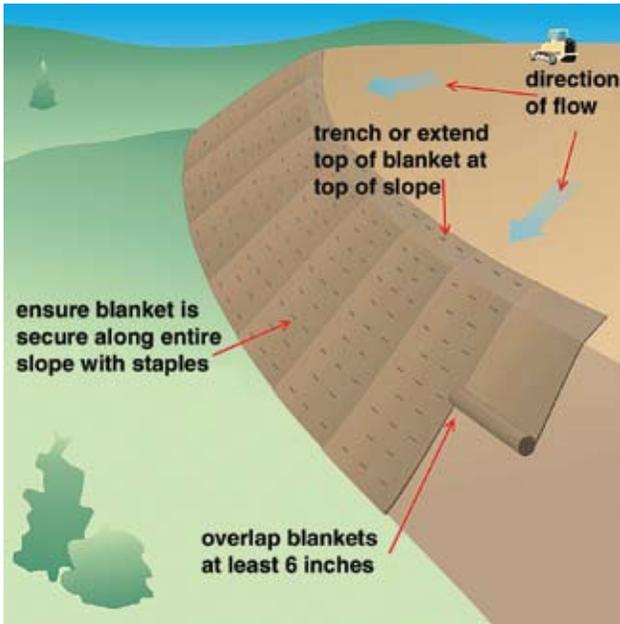


Figure 10. Erosion control blanket.

Inspection tips:

- ✓ The blanket or mat must come into complete contact with the soil.
- ✓ Check that the top of the blanket is trenched-in (there should be no evidence of water flowing under the blanket or mat).
- ✓ Mulch should not be placed in concentrated flow areas.
- ✓ Check to see if erosion is occurring in the mulched area (more mulch may need to be applied).
- ✓ Check blankets and mats to see if sections are overlapped 4-6 inches and staples are 12 inches apart on tops and 24 inches apart down the sides and in the middle.

Temporary sediment trap or pond

A temporary sediment trap or pond is a small, temporary ponding area formed by constructing an earthen embankment with an outlet across a swale. Temporary sediment traps are intended to detain sediment-laden runoff from small, disturbed areas long enough to allow the majority (at least 75 percent) of the sediment to settle out.

Sediment traps are designed for small areas. The volume of the trap must be at least 1,800 cubic feet per acre of contributing drainage.

Inspection tips:

- ✓ Check the location of the sediment trap. Failure of the trap should not pose a risk to life or property.
- ✓ Sediment in the trap should be removed after it reaches about 1/3 the design volume.
- ✓ The trap should not be installed in a main stream or near culvert outlets.
- ✓ Check the outlet for needed maintenance.

Vegetative stabilization

Vegetative stabilization includes temporary or permanent seeding and sodding. Vegetative stabilization helps prevent erosion at construction sites by reestablishing vegetation on exposed soils. Native and noninvasive species are highly preferred to introduced grasses.

Permit requirement (Part IV.B.2):

All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days, after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stock piles without significant silt, clay or organic components and the constructed based components of the roads, paving lots and similar surfaces are exempt from this requirement.

Inspection tips:

- ✓ Are all exposed soil areas stabilized?
- ✓ Check for signs of erosion in vegetated areas.
- ✓ Concentrated flows should not be allowed across newly seeded slopes.
- ✓ If late in the year, a slope may need to be mulched rather than seeded.

Permanent stormwater management system

For projects that replace pervious surfaces with one or more acres of cumulative impervious surface, a permanent stormwater management system that treats ½ inch of runoff from the new impervious surface is required (one (1) inch of runoff must be treated when discharging to special waters). See Part III.C of the permit for additional information.

For those areas of the project where there is no feasible way to meet the requirements for the water quality volume, then up to three acres or one percent of project size (whichever is larger) can use other treatment such as grassed swales, smaller ponds or grit chambers.

Documentation must be provided in the SWPPP.

The construction operator can choose one of the following approaches to meet this requirement:

- *Wet sedimentation basin.* Permanent storage volume (dead storage) of 1800 cubic feet of storage per acre that drains to the basin must be provided. The water quality volume (live storage) must be discharged at no more than 5.66 cubic feet per second (CFS) per acre of surface area of the pond. The water quality volume treated should be 1/2 inch times of new impervious surface. (Part III.C.1).
- *Infiltration/filtration.* Treatment can include infiltration basins and trenches, rainwater gardens, sand filters, bioretention areas, and enhanced swales. The water quality volume treated should be 1/2 inch of new impervious surface. (Part III.C.2).

- *Regional Ponds.* Written authorization to discharge to a regional pond must be included in the SWPPP, and the pond must meet the permit’s design requirements. (Part III.C.3)
- *Combination of the above practices.* SWPPP must document the volume that each practices addresses. (Part III.C.4)
- *Alternative method.* An alternative method must be approved in advance by the MPCA. Check the SWPPP to see if approval and additional documentation is provided. (Part III.C.5)

Solid waste/hazardous materials management

Part IV.F of the permit requires construction sites to implement pollution prevention measures. At a minimum, sites are required to:



Figure 11. Example of hazardous materials storage (doors removed for illustrative purposes only). Access to hazardous materials must be restricted.

- Properly dispose of solid waste.
- Hazardous materials must be properly stored, including secondary containment, with restricted access to prevent vandalism. Oil, gasoline and paint are hazardous materials often used at construction sites.
- Limit external washing of vehicles and contain runoff. Engine degreasing is prohibited.

Permit requirements:

- **Solid Waste:** Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements. (Part IV.F.1).
- **Hazardous Materials:** Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Access to storage areas must be restricted to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations. (Part IV.F.2).
- Spills must be reported to the Minnesota Duty Officer 1-800-422-0798.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site. (Part IV.F.3).

- Concrete washout onsite: All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities. (Part IV.F.4).

Inspection tips:

- ✓ Does the construction site have dumpsters or other containers for debris and solid waste?
- ✓ Is there evidence of solid waste or debris in the storm drain system?
- ✓ Are oil, gasoline and paint properly stored?
- ✓ Does the construction operator allow vehicles to be washed on-site?
- ✓ Are solid waste and hazardous materials stored away from receiving waters and catch basins?
- ✓ Is there evidence of hazardous materials being disposed of in the solid waste bins?
- ✓ Is there evidence that the solid waste or hazardous materials containers have leaked?
- ✓ Are vehicles or equipment fueled on-site? Is this area bermed or away from receiving waters and storm drains?
- ✓ Are all hazardous materials containers properly labeled?
- ✓ Are concrete washouts properly installed away from receiving waters and storm drains?
- ✓ Is there a sign adjacent to each washout facility to inform concrete equipment operators to utilize the proper facility.

Chapter 4

Referring Enforcement Cases to the MPCA

Specific referral procedures are detailed in contracts between the MPCA and non-MPCA inspectors. In most instances, referrals will follow this general practice. Cases may be referred directly to the MPCA from approved agencies. At this point the MPCA determines if enforcement actions are warranted and if proper documentation has been filed. If the MPCA determines that no action is required, because of the lack of documentation or insufficient information or evidence, the case will be referred back with a letter of explanation. If MPCA staff determine that action is required the case will be pursued. Cases that meet MPCA requirements will be brought through the MPCA enforcement process in conjunction with the referring approved agency. Most times a parallel request will be made by the referring approved agency to engage with local enforcement measures. These measures may include: having the plan-approving agency (zoning and planning departments) refrain from issuing or, in some cases, revoking any building or grading permits until outstanding violations are remedied.

The following are three common violations at small construction sites and the potential level of enforcement response by the MPCA and approved partners. Further information and details on MPCA enforcement response or guidance on inspection reports and field letter of warning use can be obtained from the MPCA Enforcement Response Plan (ERP).

For failure to obtain an NPDES stormwater permit

Citation: 7001.1035, 7001.1040 and 7001.1030.

Suggested enforcement action: Administrative Penalty Order (APO).

Evidence needed: photos of the construction activity, DELTA permit search, a completed inspection report, pollutant discharge documentation (when occurring), size of site, cite the “failure to obtain a permit” violation,

Required action: Immediately cease construction work. Create corrective actions that will prevent harm or correct/minimize releases. Apply for permit ASAP and prior to continued site activity. Follow up with appropriate enforcement action.

For discharging sediment into waters of the state

Citation: Minnesota Statute 115.061 or Minnesota Rule 7001.0210.

Suggested enforcement action: APO/Stipulation Agreement.

Evidence needed: Delineation of sediment plume, photos, and inspection report which describes the impacts with good factual records.

Required action: Create corrective actions to stop discharge and prevent harm or correct/minimize releases, report discharges to appropriate agencies. Proceed with appropriate enforcement action; most cases involving discharges typically involve penalties depending on the seriousness, length of time and response to the discharge.

For violations of the NPDES/SDS stormwater permit requirements

Citation: NPDES/SDS permit MN R100001

Suggested enforcement action: Letter of Warning, APO or Stipulation Agreement.

Evidence needed: Review erosion and sediment control plans, photos, and inspection reports that describes any impacts with good factual records of failure of the permit conditions.

Required action: Clearly and concisely document any violations, including the location of the violation and the part of the permit that the construction operator is violating. Create corrective actions that will result in compliance with the permit and, if appropriate, establish a time frame for compliance. Write clearly and concisely. Proceed with enforcement as appropriate. Cases involving environmental harm or potential for harm may involve penalties depending on the seriousness, length of time and response to the corrective actions. Case by case evaluation is necessary to make these determinations. If a reinspection is necessary, set a time or date for this (either scheduled with the construction operator or an unannounced inspection).

Enforcement options available

There are a suite of enforcement options available to local government or state agencies ranging from field requests to formal notices and various penalty actions, including local citations, administrative penalty orders, stipulation agreements, stop work orders and permit revocations.

Additional Resources

This *Stormwater Inspection Guide* is available online, as are the additional resources on stormwater BMPs listed below:

MPCA Stormwater Inspection Guide

www.pca.state.mn.us/publications/wq-strm2-10.pdf.

MPCA Stormwater Manual

www.pca.state.mn.us/water/stormwater/stormwater-manual.html. The first half of the manual is dedicated to the general Minnesota context for stormwater management. The second half includes diagrams and formulas, it is intended for professional, but useful for homeowners.

MPCA Stormwater Program

www.pca.state.mn.us/water/stormwater/index.html. Click on the construction stormwater program to get copies of the construction permit, application, fact sheets, information on special waters and staff contacts.

MPCA Stormwater BMP Manual

www.pca.state.mn.us/water/pubs/sw-bmpmanual.html. An electronic copy of the MPCA's *Protecting Water Quality in Urban Areas: Best Management Practices for Dealing with Stormwater Runoff from Urban, Suburban and Developing Areas of Minnesota* (2000). Includes information on all types of stormwater control practices.

Metropolitan Council's Urban Small Sites BMP Manual

www.metrocouncil.org/environment/Watershed/bmp/manual.htm.

An electronic copy of the *Minnesota Urban Small Sites BMP Manual: Stormwater Best Management Practices for Cold Climates* (2001). This BMP manual provides information on construction and permanent stormwater BMPs.

Minnesota Erosion Control Association

www.mnerosion.org. An organization that is advancing effective stormwater management and erosion and sediment control techniques and practices.

International Erosion Control Association

www.ieca.org Association for erosion and sediment control professionals.

Definitions

The following selected definitions are reprinted from the MPCA’s construction permit. For additional definitions, see the construction permit.

“Best Management Practices (BMPs)”

Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing degradation of surface water, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by state or designated area-wide planning agencies. Individual BMPs found in the construction permit are described in the current version of *Protecting Water Quality in Urban Areas*, Minnesota Pollution Control Agency 2000. BMPs must be adapted to the site and can be adopted from other sources. However, they must be similar in purpose and at least as effective and stringent as the MPCA’s BMPs. (Other sources include manufacturers specifications, *Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices*, U.S. Environmental Protection Agency 1992, and *Erosion Control Design Manual*, Minnesota Department of Transportation, et al, 1993).

“Common Plan of Development or Sale”

A contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

“Construction Activity”

Construction activity as defined in 40 C.F.R. part 122.26(b)(14)(x) and small construction activity as defined in 40 C.F.R. part 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into surface waters or drainage systems. Examples of construction activity may include clearing, grading, filling and excavating. Construction activity includes the disturbance of less than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more.

“Erosion Prevention”

Measures employed to prevent erosion including but not limited to: soil stabilization practices, limited grading, mulch, temporary or permanent cover, and construction phasing.

“Final Stabilization” requires all of Parts 1-5 or Part 6:

1. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.
2. The permanent stormwater treatment system meets all requirements in Part III, C. This includes but is not limited to, a final clean out of temporary or permanent sedimentation basins that are to be used as permanent water quality management basins and final construction or maintenance of infiltration basins. All sediment must be removed from conveyance systems and ditches must be stabilized with permanent cover.
3. Prior to submission of the Notice of Termination, all temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed on the portions of the site for which the Permittee is responsible. Best Management Practices designed to decompose on site (such as some compost logs) may be left in place.
4. For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and downgradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the Permittee must distribute the MPCA’s “Homeowner Fact Sheet” to the homeowner to inform the homeowner of the need for, and benefits of, permanent cover.
5. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land) Final Stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use.
6. A Permittee may terminate permit coverage prior to completion of all construction activity if all of the following conditions are met in addition to Part 2 and 3 and where applicable, Part 4 or Part 5.
 - a. Construction activity has ceased for at least 90 days.
 - b. At least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover established on those areas.
 - c. On areas where construction activity is not complete, permanent cover has been established.

“Operator”

The person (usually the general contractor), designated by the owner, who has day-to-day operational control and/or the ability to modify project plans and specifications related to the SWPPP. The person must be knowledgeable in those areas of the permit for which the operator is responsible. (Part II.B. and Part IV.).

“Owner”

The person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease, easement, or mineral rights license holder, the party or individual identified as the lease, easement or mineral rights license holder; or the contracting government agency responsible for the construction activity.

“Permittee”

A person(s), firm, or governmental agency or other institution that signs the application and is responsible for compliance with the terms and conditions of the permit.

“Sediment Control”

Methods employed to prevent sediment from leaving the site. Sediment control practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

“Stormwater”

Defined under Minn. R. 7077.0105, subp. 41(b), and includes precipitation runoff, stormwater runoff, snow melt runoff, and any other surface runoff and drainage.

“Stormwater Pollution Prevention Plan”

A plan for stormwater discharge that includes erosion prevention measures, sediment controls and permanent stormwater Management System that, when implemented, will decrease soil erosion on a parcel of land and decrease off-site nonpoint pollution.

“Surface Water or Waters”

All streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private.

“Temporary Erosion Protection”

Methods employed to prevent erosion. Examples of temporary cover include; straw, wood fiber blanket, wood chips, and erosion netting.

“Waters of the State”

Defined in Minn. Stat. § 115.01, subd. 22 as all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.



Attachment A - Photo Log

Acme Construction (permit number)

Inspected by: (Inspector's name, office, phone number)

Construction site name and inspector's last name, office, and phone number are centered in the header and must appear on all pages.



Photo 1: Well-maintained and labeled concrete truck washout

Generally each page will have two landscape or one portrait picture(s). To size each picture, right-click on the picture and select Format Picture for sizing. For landscape view, set height to 3.5" and width is set by MS Word (make sure Lock Aspect Ratio is checked ON.) For portrait view, set width to 3.5" and height is set by MS Word.



Photo 2: Hay bales and silt fence that are in need of maintenance

Inspection Date: January 5, 2004

Page 1 of 3

Inspection date and sequential page numbering in the footer must appear on all pages.

Attachment B - Violation Citations

NPDES/SDS General Stormwater Permit for Construction Activity Violation Citations

Citation	Permit section or rule
No permit	Minn. R. 70090.2010 Subparts 1, 2, 3 (permit required, permit application deadline, and compliance requirements for unpermitted construction, respectively)

Change of Coverage II. B. 5

Erosion Control Practices during Construction

- a) All exposed soil must be stabilized no later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased IV. B. 2
- b) Normal wetted perimeter of drainage system - 200' within 24 hours of connecting IV. B. 3
- c) Energy dissipation (temp. or perm.) within 24 hours IV. B. 4

Sediment Control Practices during Construction

- a) Lacking sediment control practices Overloaded systems eliminated, no unbroken slopes 75' @ 3:1> IV. C. 1
- b) Temporary sediment basin required III. B
- c) Inlet BMPs not functional IV. C. 4
- d) Perimeter controls/soil disturbance IV. C. 2

Inspections and Maintenance

- a) Maintenance of erosion and sediment temporary/permanent cover IV. E. 4
- b) Temporary sediment basin 1/2-volume IV. E. 4. b
- c) Recovery of sediment in waters (name water body) IV. E.4. c
 - Duty to notify, avoid and recover water pollution Minn. Stat.115.061§
 - Nuisance conditions prohibited (define discharge) Minn. R 7050.0210, subp. 2
- d) Vehicle tracking IV. E.4. d

Inspections and Records Retention

- a) SWPPP development required III. D
 - SWPPP requirements: III. A
 - BMPs/locations procedures III. A. 4
 - Site map/flow arrows III. A. 4. a
 - Areas not to be disturbed III. A. 4. b
 - Phased areas III. A. 4. c
 - Surface waters/wetlands 1 mile III. A. 4. d
 - Methods for final stabilization III. A. 4. e
 - Amend SWPPP modify BMP III. A. 4. f
- b) Inspections (specifically note failed maintenance) IV. E.
- c) Training requirement documentation III.A.2

Permanent Stormwater Treatment

- >One (1) acre impervious, permanent treatment required III. C
 - a) Wet sedimentation basin III. C. 1
 - Regional ponds III. C. 3
 - Infiltration/filtration (hydro analysis) III. C. 2
 - Alternative methods, 90-day review, monitoring III. C. 5
 - b) Pretreatment required III. C
 - c) Dewatering IV. D
 - d) Turbid discharges off site or waters of the state Minn. R 7050. 0210, subp.2
 - e) Wetland impacts: authorization and mitigation

Management Pollution Prevention

- a) Solid waste disposed of properly IV. F. 1
- b) Hazardous materials in secondary containment and restricted access IV. F. 2
- c) Defined areas for construction vehicles external washing IV. F. 3
- d) Defined concrete washout on site and with a sign IV. F. 4

Attachment B - Violation Citations

(continued)

Letter of Warning (LOW)

A notice to a regulated party (RP) that documents violations discovered during an inspection, complaint follow-up or review of submittals. The LOW typically includes a reference of the statute, rule, permit condition or checklist that are violated. The LOW typically requires the regulated party to complete specific corrective actions to return the facility to compliance. The LOW usually gives a regulated party between 7-30 days to complete required corrective actions.

Request for Information (RFI)

A notice to an RP requiring information. Occasionally additional information is required to determine the status of compliance or for an RP to respond to violations discovered. This information can be used to determine if elevated enforcement (including penalties) is appropriate.

Corrective Actions (LOW or RFI)

Requirements to correct field conditions and to come into compliance with the permit, statute or rules and must be responded to in the period noted on this field report. This response (including any lack of response) is considered by the MPCA and future enforcement for the violations discovered.

Attachment C - Temporary, Permanent Sediment Basin Checklist

Site Name/Location _____ Date of inspection _____

Permanent – temporary (circle) sedimentation basins: (location/ID) _____

Required basin installed (> 10 acres/ single point (T) or >1 acre new impervious (P)?)	Yes	No
Does basin have energy dissipation for outlet?	Yes	No
Stabilized emergency overflow outlet?	Yes	No
Was basin constructed /operational concurrent with construction?	Yes	No
Are slopes stabilized with perm cover or temp erosion protection?	Yes	No
Is basin connected to surface waters? Yes Name/description waters: _____		
Was discharge- connection stabilized within 24 hours of connecting?	Yes	No
Dewatering: Onsite to a temp. settling basin? Yes No If offsite, is water turbid?	Yes	No
If no settling basin, was appropriate BMPs for turbidity and scour applied?	Yes	No
Is discharge from site creating a nuisance conditions or WQ violations?	Yes	No

Observations:

Permanent – temporary (circle) sedimentation basins: (location/ID) _____

Required basin installed (> 10 acres/ single point (T) or >1 acre new impervious (P)?)	Yes	No
Does basin have energy dissipation for outlet?	Yes	No
Stabilized emergency overflow outlet?	Yes	No
Was basin constructed /operational concurrent with construction?	Yes	No
Are slopes stabilized with perm cover or temp erosion protection?	Yes	No
Is basin connected to surface waters? Yes Name/description waters: _____		
Was discharge- connection stabilized within 24 hours of connecting?	Yes	No
Dewatering: Onsite to a temp. settling basin? Yes No If offsite, is water turbid?	Yes	No
If no settling basin, was appropriate BMPs for turbidity and scour applied?	Yes	No
Is discharge from site creating a nuisance conditions or WQ violations?	Yes	No

Observations:

Permanent – temporary (circle) sedimentation basins: (location/ID) _____

Required basin installed (> 10 acres/ single point (T) or >1 acre new impervious (P)?)	Yes	No
Does basin have energy dissipation for outlet?	Yes	No
Stabilized emergency overflow outlet?	Yes	No
Was basin constructed /operational concurrent with construction?	Yes	No
Are slopes stabilized with perm cover or temp erosion protection within 200' of surface water?	Yes	No
Is basin connected to surface waters? Yes Name/description waters: _____		
Was discharge- connection stabilized within 24 hours of connecting?	Yes	No
Dewatering: Onsite to a temp. settling basin? Yes No If offsite, is water turbid?	Yes	No
If no settling basin, was appropriate BMPs for turbidity and scour applied?	Yes	No
Is discharge from site creating a nuisance conditions or WQ violations?	Yes	No

Observations:

STANDARD OPERATING PROCEDURES

Appendix F Post-Construction Stormwater BMP Maintenance Guidance

Memorandum

To: *Laura Adler, City of Edina*

From: *Jesse Carlson, CPESC, CPSWQ*

Date: *May 9, 2014*

Re: *Long Term Operation and Maintenance Ordinance Language
WSB Project No. 2092-650*

Ordinance Language -Long Term Operation and Maintenance of BMPs

- I. **Maintenance of Stormwater Facilities** – The community requires that stormwater facilities constructed on private property be maintained to ensure they are functioning as originally designed.
 - A. **Credit System** – Systems constructed are given credits towards a reduction on their stormwater utility. Failure to maintain these systems will result in revocation of these credits and payment of the full stormwater utility fee. City Code Chapter 28, Utilities, Article III. Stormwater Drainage Utility.
 - B. **Maintenance Agreement** – Owners of private stormwater management facilities shall enter into an agreement with the City describing responsibility for the long-term operation and maintenance of the facilities.
 - C. **Inspections** – All such facilities shall be inspected annually to ensure proper operation and documentation provided to the City.
 - D. **Maintenance plan required** - No private stormwater facilities may be approved unless a maintenance plan is provided that defines who will conduct the maintenance, the type of maintenance and the maintenance intervals.
 - E. **Maintenance-friendly design** - All stormwater facilities must be designed to minimize the need for maintenance, to provide easy vehicle and personnel access for maintenance purposes, and be structurally sound. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the facilities for inspection or maintenance.
 - F. **Removal of settled materials** - All settled materials from ponds, sumps, grit chambers, and other devices, including settled solids, shall be removed and properly

disposed of an annual basis. This frequency may be adjusted if the facility has additional capacity to remove settled solids in accordance with the original design capacity.

- II. **Right of Entry and Inspection** - The applicant shall promptly allow the city and their authorized representatives, upon presentation of credentials to:
- A. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys.
 - B. Bring such equipment upon the permitted site as is necessary to conduct such surveys and investigations.
 - C. Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site.
 - D. Inspect the stormwater facilities.
 - E. Sample and monitor any items or activities pertaining to the performance of these stormwater facilities.
 - F. Any temporary or permanent obstruction to the safe and easy access of such an inspection shall be promptly removed upon the inspector's request. The cost of providing such access shall be born by the applicant.

CITY OF EDINA
COUNTY OF HENNEPIN
STATE OF MINNESOTA

**STORMWATER FACILITIES MAINTENANCE AGREEMENT
WITH ACCESS RIGHTS AND CONENANTS**

(_____ Insert Project Reference Numbers _____)

This AGREEMENT, made and entered into this ___ day of _____, 20___, for the maintenance and repair of certain Stormwater Management Facilities is entered into between

_____ (hereinafter referred to as "OWNER") and the City of Edina (hereinafter referred to as "CITY") for the benefit of the CITY, the OWNER, the successors in interest to the CITY or the OWNER, and the public generally.

WITNESSETH

WHEREAS, the undersigned is the owner of that certain real property lying and being in the _____ Land Lot/District, _____ identified as [Tax Map/Parcel Identification Number] _____ and being more particularly described by deed as recorded in the land records of the City of Edina, Minnesota, Deed Book _____ Page _____, hereinafter called the "Property".

WHEREAS, the undersigned is proceeding to build on and develop the property; and has submitted the Site Plan/Subdivision Plan known as _____, (Name of Plan/Development) hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for detention of stormwater within the confines of the property; and

WHEREAS, the City and the undersigned, its successors and assigns, including any homeowners association, (hereinafter the "Landowner") agree that the health, safety, and welfare of the residents of the City of Edina, Minnesota, requires that on-site stormwater management facilities be constructed and maintained on the Property; and

WHEREAS, the City requires that on-site stormwater management facilities as shown on the Plan (the "Facilities") be constructed and adequately maintained by the Landowner.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- (1) When a new drainage control facility is installed, the party having the facility installed shall obtain a copy of the as-built plans from the City of Edina Engineering Department. Responsible parties shall make records of the installation and of all maintenance and repair, and shall retain the records for at least ten years. These records shall be made available to the City of Edina's City Engineer during Inspection of the facility and at other reasonable times upon request of the City Engineer.

- (2) The following operational maintenance activities shall be performed on all permitted systems on a regular basis or as needed:
 - a) Removal of trash and debris,
 - b) Inspection of inlets and outlets,
 - c) Removal of sediments when the storage volume or conveyance capacity of the stormwater management system is below design levels
 - d) Ensure systems designed for infiltration are drawing down within 48 hours, and
 - e) Stabilization and restoration of eroded areas.

- (3) Specific operational maintenance activities are required, depending on the type of permitted system, in addition to the practices listed in subsection (2), above.
 - a) Retention, swale and underdrain systems shall include provisions for:
 1. Mowing and removal of grass clippings, and
 2. Aeration, tilling, or replacement of topsoil as needed to restore the percolation capability of the system. If tilling or replacement of the topsoil is utilized, vegetation must be established on the disturbed surfaces.
 - b) Exfiltration systems shall include provisions for removal of sediment and debris from pretreatment or sediment collection systems.
 - c) Wet detention systems shall include provisions for operational maintenance of the littoral zone. Replanting shall be required if the percentage of vegetative cover falls below the permitted level. It is recommended that native vegetation be maintained in the littoral zone as part of the system's operation and maintenance plan. Undesirable species such as cattail and exotic plants should be controlled if they become a nuisance.
 - d) Dry detention systems shall include provisions for mowing and removal of grass clippings.

- (4) If the system is not functioning as designed and permitted, operational maintenance must be performed immediately to restore the system. If operational maintenance measures are insufficient to enable the system to meet the design and performance standards of this chapter, the permittee must either replace the system or construct an alternative design.

- (5) In the event the Landowner fails to maintain the Facilities in good working condition acceptable to the City, the City will no longer provide credits towards a reduction in the landowners' stormwater utility fee. The City may enter upon the Property and take such steps as are necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner outside of the easement for the stormwater management facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. The Landowner grants to the City, its authorized agents and employees, a non-exclusive, perpetual easement over, across, under and through the Property for such purposes.

IN WITNESS THEREOF, the parties hereto acting through their duly authorized agents have caused this Agreement to be signed, sealed and delivered:

(Insert Company/Corporation/Partnership Name) [SEAL]

By: (Type Name and Title)

The foregoing Agreement was acknowledged before me
this ____ day of _____, 20____, by

Unofficial Witness

NOTARY PUBLIC

My Commission Expires: _____
CITY OF EDINA, MINNESOTA

**ATTACHMENT 1: CITY OF EDINA
ENGINEERING STANDARDS FOR STORM WATER
TREATMENT FACILITIES**

The following are the maintenance requirements required for the proper operation of water quality treatment structures provided by the *Minnesota Stormwater Manual* (MPCA, November 2005) and the *Minnesota BMP Manual* (Metropolitan Council, July 2001):

Pond Maintenance Requirements

1. Annual inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the City annually.
2. Excavate pond to original design capacity when one half (1/2) of the wet volume of the pond is lost due to sediment deposition.
3. Remove floatable debris in and around the pond area including, but not limited to: oils, gases, debris and other pollutants.
4. Maintain landscape adjacent to the facility per original design, including but not limited to: maintenance of the buffer strip and other plant materials as per original plan design.
5. Maintenance of all erosion control measures including but not limited to: rip rap storm sewer outlets, catch basin inlets, etc.

Environmental Manhole Maintenance Requirements

1. Annual inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the City annually.
2. Maintenance should be performed once the sediment or oil depth exceeds the established requirements recommended by the manufacturer.
3. Maintenance should occur immediately after a spill takes place. Appropriate regulatory agencies should also be notified in the event of a spill.
4. Disposal of materials shall be in accordance with local, state and federal requirements as applicable.

Rain Garden Maintenance Requirements

1. Inlet and Overflow Spillway – Remove any sediment build-up or blockage and correct any erosion.
2. Vegetation
 - a. Maintain at least 80% surface area coverage of plants approved per plan.
 - b. Removal of invasive plants and undesirable woody vegetation.
 - c. Removal of dried, dead and diseased vegetation.
 - d. Re-mulch void or disturbed/exposed areas.
3. Annual inspection and maintenance efforts must be documented and submitted to the City.

Filtration Basin Maintenance Requirements

1. Sweep sediment from parking lot 4 times per year
2. Ongoing and as needed:
 - a. Prune and weed to maintain appearance
 - b. Remove trash and debris
 - c. Maintain at least 80% surface area coverage of plants approved per plan.
 - d. Removal of invasive plants and undesirable woody vegetation.
 - e. Removal of dried, dead and diseased vegetation.
 - f. Re-mulch void or disturbed/exposed areas.
3. Semi-annually:
 - a. Remove sediment from inflow points (off-line systems)
 - b. Inspect aggregate filter system and clean as needed
 - c. Shrubs should be inspected to evaluate health. Remove dead and diseased vegetation.
4. Annually:
 - a. Inspect and remove any sediment and debris build-up in pre-treatment areas
 - b. Inspect inflow points and bioretention surface for build up of road sand associated with spring melt period. Remove and replant as necessary.
5. 2 to 3 years:
 - a. Test pH of planting soils. If pH is below 5.2, add limestone. If pH is 7.0 to 8.0, add iron sulfate plus sulfur.
6. Annual inspection and maintenance efforts must be documented and submitted to the City.

MINIMUM CONTROL MEASURE 4 and 5

Appendix G Small Site Stormwater Evaluation



Memorandum

To: *Ross Bintner, City of Edina*
Laura Adler, City of Edina

From: *Jesse Carlson*
Bob Barth

Date: *May 13, 2014*

Re: *Ordinance Update – Small Site Policy and BMP Evaluation*
WSB Project No. 2092-65

Overview

The City of Edina's Code, Section 411 – Demolition Permit and Building Permits for Single and Two Family Dwelling Units, requires a stormwater and erosion control plan showing how the applicant will control stormwater to prevent damage to adjacent property and adverse impacts to the public stormwater drainage system. The ordinance does not currently stipulate technical requirements to prevent these adverse impacts. To bridge this gap, this memorandum identifies policy options to address the increased runoff generated by single lot residential reconstruction projects.

The City maintains a stormwater utility whereby residents pay a quarterly fee for the service that the stormwater system provides. City staff and policy-makers should consider whether properties that implement the new requirements explored herein should obtain a credit toward their utility bill to the extent the improvements are adequately maintained.

Policy Introduction

The additional impervious surface created by residential reconstruction projects increases runoff and thereby affects the service other residents obtain from the stormwater system. These adverse impacts include:

- Localized flooding (lot to lot)
- Neighborhood flooding
- Subwatershed flooding
- Water quality impacts to streams, lakes and wetlands

Substantial precedent exists for regulating increased impervious surface due to redevelopment. However, we find very little precedent for regulating increased impervious surface at the scale of a single residential lot. Consequently, a model for the City's smaller scale policy comes not from similar policies in other communities, but rather from policies used throughout the Twin Cities to regulate the redevelopment of larger parcels.

The policies presented here each have a distinct perspective. The differences are in how much mitigation occurs through private implementation versus public implementation.

Policy Options 1 through 3 require mitigation for all new and disturbed impervious on a lot. This includes existing impervious that is rebuilt, plus all new impervious. The differences among these policies concern the amount of mitigation required. Policy Option 4 considers the existing site impervious as exempt from the requirements and looks for mitigation for new impervious only. To avoid confusion with wetland mitigation, we will use the term credits in lieu of mitigation for this policy discussion.

Credits occur through the construction of on-site practices that capture and hold runoff. These include:

- **Retention:** depressions within the landscape
- **Bioretention:** depressions within the landscape that include special soils and vegetation to improve pollutant removal and infiltration
- **Pervious Pavement or Pavers:** underlying gravel bed provides storage
- **Underground Storage:** tanks, pipes or cisterns that capture runoff. Captured water can be used for irrigation. These systems require a small pump.
- **Rainbarrels:** Due to their small size, these do not generate enough credits for most sites.

Policy Discussion

When discussing each policy we consider its impact to the private system and the public system. The private system consists of the practices that occur on the lot while the public system consists of the catch-basins, storm sewer, streets, ponds, streams, lakes and wetlands that occur within the neighborhood and subwatershed.

The policies presented here each have a distinct perspective. They are:

Policy #1: Protect water quality

Private system impact: On-site credits maintain downstream discharge of pollutants and decrease runoff from small rainfalls (< 1.5 inches, single event).

Public system impact: Increased runoff for moderate (1.5 to 3.0 inches, single event) and large rainfalls (3.0 to 6.0 inches, single event) create the potential for increased neighborhood and subwatershed flooding.

Policy #2: Protect water quality, maintain flood control for moderate rainfalls

Private system impact: On-site credits maintain downstream discharge of pollutants and decrease runoff from small and moderate rainfalls.

Public system impact: Increased runoff for large rainfalls creates the potential for increased neighborhood and subwatershed flooding.

Policy #3: Protect water quality, maintain flood control for large rainfalls

Private system impact: On-site credits maintain downstream discharge of pollutants and decrease runoff from large rainfalls.

Public system impact: No impact according to current design standards. For extreme rainfall events (beyond current design standards) there could be an increased potential for neighborhood and subwatershed flooding.

Policy #4: Same as policy #3 except that existing lot impervious is exempt from having to provide credits.

Table 1 presents design standards that achieve the desired policy goals. Essentially, the policies require the project to provide storage (credits required in Table 1). The storage can be calculated in two ways: 1) a depth of runoff over the regulated impervious surface or 2) a volume of runoff for each square foot of regulated impervious. The two methods calculate the same number of credits.

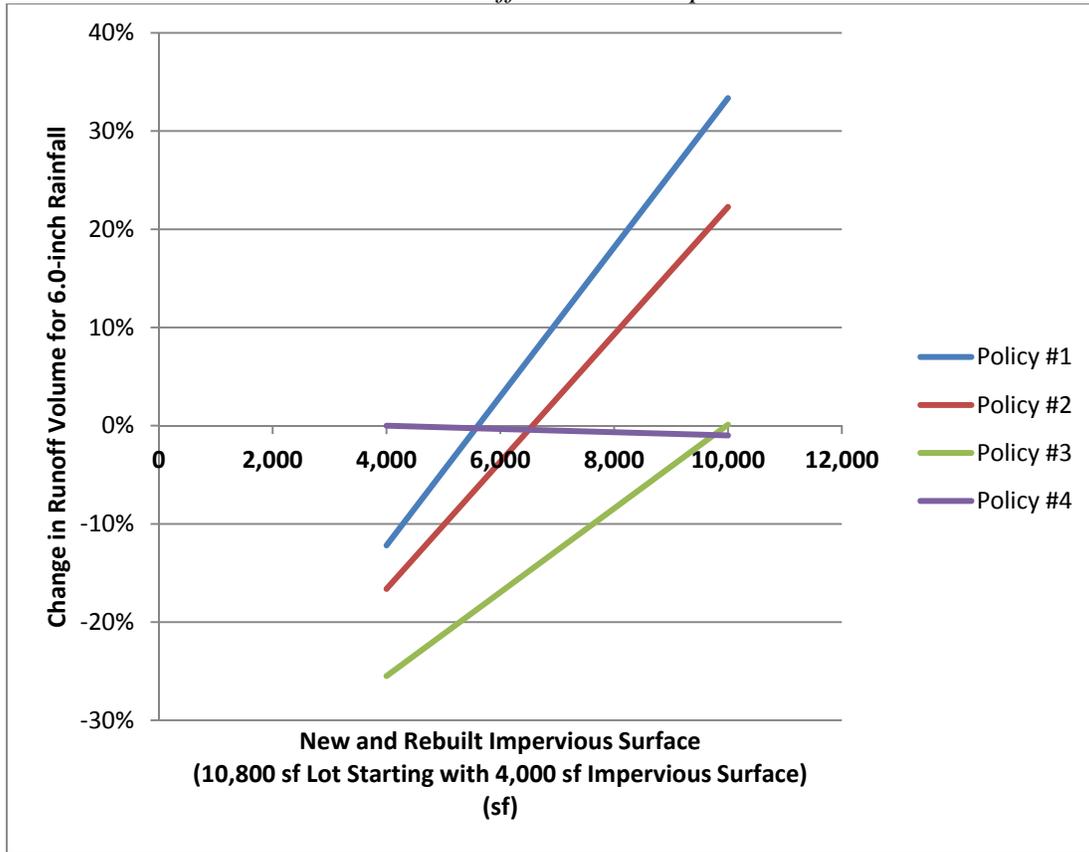
Table 1 – Design Standards

	Credits Required	
	(inches x impervious)	(cubic feet/square foot impervious)¹
Policy #1	1.1	0.09
Policy #2	1.5	0.13
Policy #3	2.3	0.19
Policy #4	3.9	0.33

1. Policy #1 through #3 for new and rebuilt impervious. Policy #4 for new impervious only.

Chart 1 shows the relationship between new and rebuilt impervious and runoff for a 6.0-inch rainfall event. The chart shows the change in runoff as a percentage of runoff generated by a base condition, which is assumed to be a 10,800 square foot lot with 4,000 square feet of impervious surface.

Chart 1. Runoff Volume Comparison



Cost Summary

The cost for credits varies considerably depending on the type of practice used. Table 2 presents typical costs for four different practices.

Table 2 - Cost Comparison

Practice	Unit Cost
Retention	\$0.40/CF
Bioretention	\$1.10/CF
Pavers/Pervious Pavement ¹	\$4.50/CF
Rain Barrel	\$12.00/CF

¹ Pervious pavement cost is representative of the additional cost to install vs. a typical driveway installation.

Most likely, homeowners would create credits by constructing simple retention. To cover the complete set of options homeowners might use, an average cost of \$1.00/CF will be used in the subwatershed comparisons presented below.

Private Implementation at the Subwatershed Scale

Implementing credits on site, in the private system, may be the only option in certain subwatersheds. To understand the magnitude of the cost difference between the different policies, we have prepared a subwatershed analysis for the options presented here. Table 3 summarizes this analysis.

Table 3 – Cost Impacts of Private Implementation

Subwater shed LP- 20	Area	Impervious Area			Cost to Implement			
		Existing	Potential ¹	Change	Policy #1 0.09 cf/sf	Policy #2 0.13 cf/sf	Policy #2 0.19 cf/sf	Policy #4 0.33 cf/sf
	(ac)	(%)	(%)	(sf)	(\$)			
Existing	14	20%	NA	NA	NA	NA	NA	NA
Case 1	14	20%	27%	40,276	14,445	20,865	30,495	13,291
Case 2	14	20%	33%	79,950	14,445	20,865	30,495	26,384
Case 3	14	20%	40%	120,226	14,445	20,865	30,495	39,674

¹ Potential increase in impervious based on 3 different redevelopment cases.

The potential change in subwatershed impervious coverage is estimated based on three different redevelopment cases

- Case 1 impervious increase is 6.7% (1/3 redeveloped).
- Case 2 impervious increase is 13.3% (2/3 redeveloped).
- Case 3 impervious increase is 20% (3/3 redeveloped).

Conclusion

Private implementation of on-site practices can eliminate adverse impacts due to increased impervious surface on residential lots. Different policy options can accomplish different objectives. Policy Options 1 and 2 are similar in that they reduce runoff volume for small changes but allow impacts to the public system (through increased runoff) when the total post project impervious surface increases beyond 5,500 and 6,500 square feet, respectively. Policy Option 3 sets this threshold for adverse impact at 10,000 square feet post project impervious. Policy Option 4 exempts existing impervious and holds impacts to very near existing conditions for any future impervious condition. Since the analysis is based on an old definition of the 100-year storm, the City of Edina may consider whether it wants to increase these numbers to reflect the newly published definition of a 100-year storm in which case approximately 50% should be added to credit calculation for each policy option.

STANDARD OPERATING PROCEDURES

Minimum Control Measure 6 Pollution Prevention and Good Housekeeping Practices for Municipal Facilities

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- Appendix A Facility Inventory
- Appendix B Inspection Forms

MINIMUM CONTROL MEASURE 6

1. INTRODUCTION

1.1. Basis for the Standard Operating Procedures (SOPs)

The Minnesota Pollution Control Agency issues a National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). The MS4 will examine and alter their own actions as well as work with other governmental agencies to help ensure a reduction in the amount and type of pollution that:

- Collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways.
- Results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

This SOP Manual will assist the City of Edina in using targeted best management practices (BMPs) that are intended on reducing the discharge of pollutants from municipal activities.

1.2. Objectives of the SOPs

This manual is intended to provide guidance on Good Housekeeping Practices for Municipal Operations as follows:

- Provide BMPs used for municipal activities.
- Provide methods for employing spill prevention and response.
- Provide tools for documenting inspections of ponds, outfalls, and municipal facilities.

2. POLLUTION PREVENTION

2.1. Dumpsters/Garbage Storage

Activities and Definition

Potential for pollutants can occur if proper garbage management is not in place. An appropriate number of dumpster should be located throughout the facility to provide enough storage for daily activities. In addition facility dumpsters are to be marked for proper materials disposal.

Preparation

- a. Train employees on proper trash disposal.
- b. Locate dumpsters and trash cans in convenient, easily observable areas.
- c. Provide properly labeled recycling bins to reduce the amount of garbage disposed.

- d. Where applicable install berms, curbing, or vegetation strips around storage areas to control water entering/leaving storage areas.
- e. Whenever possible store garbage containers beneath a covered structure or inside to prevent contact with stormwater.

Process

- a. Inspect garbage bins for leaks regularly and have repairs made immediately by responsible party.
- b. Request/use dumpsters and trash cans with lids and without drain holes.
- c. Locate dumpsters on a flat, hard surface that does not slope or drain directly into the storm drain system.

Clean-up/Follow-up

- a. Keep areas around dumpsters clean of all garbage.
- b. Have garbage bins emptied regularly to keep from overflowing.
- c. Wash out bins or dumpsters as needed to keep odors from becoming a problem.

2.2. Parking Lot Maintenance

Activities and Definition

Parking Lots can potentially generate increased pollutant loads to the stormwater system from run-off. A well maintained parking surface can help to reduce some of those pollutant concerns.

Preparation

- a. Conduct regular employee training to reinforce proper housekeeping that will be included in part with regularly scheduled street sweeper training.
- b. Restrict parking in areas to be swept prior to and during sweeping using regulations as necessary.
- c. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.

Process

- a. Sweep parking areas, as needed, or as directed by the City's responsible official.
- b. Hand sweep sections of gutter if soil and debris accumulate.
- c. Pick-up litter as required to keep parking areas clean and orderly.

Clean-up/Follow-up

- a. Dispose of sweepings properly (appropriate facility).
- b. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into a storm drain.

- c. Swept materials will not be stored in locations where stormwater could transport fines into the storm drain system.

Documentation

- a. Keep accurate logs to track swept parking areas and approximate quantities.
- b. Document training of employees.

2.3. Parks – Chemical Application Pesticides, Herbicides, Fertilizers

Activities and Definition

A pivotal part of the beautification of the City is a great parks system. The health and beauty of lawns and natural areas take the application of some chemicals and fertilizers.

Preparation

- a. Make sure your state Chemical Handling Certification is complete and up-to-date before handling any chemicals.
- b. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
- c. Use pesticides only if there is an actual pest problem and periodically test soils for determining proper fertilizer use.
- d. Time and apply the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendations for best results ("Read the Label").
- e. Know the weather conditions. Do not use pesticides if rain is expected or if wind speeds are expected to be greater than 5 mph.

Process

- a. Always follow the manufacturer's recommendations for mixing, application and disposal ("Read the Label").
- b. Do not mix or prepare pesticides for application near storm drains. Preferably mix pesticides inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
- c. Employ techniques to minimize off-target application (e.g. spray drift, over broadcasting) of pesticides and fertilizers.

Clean-up/Follow-up

- a. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
- b. Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.

- c. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers (“Read the Label”).

Documentation

- a. Keep copies of MSD sheets for all pesticides, fertilizers and other hazardous products used.
- b. Record fertilizing and pesticide application activities, including date, individual who did the application, amount of product used and approximate area covered.

2.4. Parks – Cleaning Equipment

Activities and Definition

There are many benefits to taking proper care of the City’s equipment. Prolonging the life of the equipment by taking the time to maintain critical parts is an essential part of the Parks department’s daily activities.

Preparation

- a. Review process with all Parks employees.

Process

- a. Wipe off dirt, dust and fluids with disposable towel.
- b. Wash equipment in approved wash station.

Clean-up/Follow-up

- a. Dispose of towels in proper trash receptacle
- b. Sweep surfaces and dispose of debris.

Documentation

- a. N/A

2.5. Parks – Mowing and Trimming

Activities and Definition

Regular mowing and trimming activities have potential to deposit materials onto hard surfaces. Care should be taken to insure mowing or trimming refuse is disposed of properly.

Preparation

- a. Process overview with employees.
- b. Check the oil and fuel levels of the mowers and other equipment. Fill in proper areas if needed.

Process

- a. Install temporary catch basin protection on potentially affected basins.
- b. Put on eye and hearing protection.
- c. Mow and trim the lawn.
- d. Sweep or blow clippings to grass areas.
- e. Remove inlet protection if used.

Clean-up/Follow-up

- a. Mowers are to be scraped and brushed at designated location.
 1. Dry spoils are dry swept and disposed of properly
- b. Wash equipment in approved wash station.

Documentation

- a. Document and observed deficiencies for correction or repair.

2.6. Parks – Open Space Management

Activities and Definition

Open space provides great value to the park system that go beyond ball fields. This includes stormwater retention and potential flood relief.

Preparation

- a. Provide a regular observation and maintenance of parks, golf courses, and other public open spaces.
- b. Identify public open spaces that are used for stormwater detention and verify that detention areas are included on the storm drain system mapping, inspection schedules, and maintenance schedules.

Process

- a. Ensure that any storm drain or drainage system components on the property are properly maintained.
- b. Avoid placing bark mulch (or other floatable landscaping materials) in stormwater detention areas or other areas where stormwater runoff can carry the mulch into the storm drainage system.

- c. Follow all SOPs related to irrigation, mowing, landscaping, and pet waste management.

Clean-up/Follow-up

- a. Keep all outdoor work areas neat and tidy. Clean by sweeping instead of washing whenever possible. If areas must be washed, ensure that wash water will enter a landscaped area rather than the storm drain. Do not use soap for outdoor washing.
- b. Pick up trash on a regular basis.

Documentation

- a. Document and observed deficiencies for correction or repair.

2.7. Parks – Pet Waste

Activities and Definition

Pet waste has the potential to be a contributor to downstream degradation if not maintained and properly disposed of.

Preparation

- a. Enforce City Code Chapter 8, Animals requiring pet owners to clean up pet wastes and use leashes in public areas. Avoid designating public off-leash areas near streams and water bodies.
- b. Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet waste has been a problem. Provide signs with instructions for proper cleanup and disposal.

Process

- a. Check parks and trails for pet waste as needed.
- b. Check public open space for pet waste prior to mowing and watering.
- c. Provide ordinance enforcement as needed.

Clean up / follow-up

- a. Remove all pet waste; provide temporary storage in a covered waste container, and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.

Documentation

- a. Document problem areas for possible increased enforcement and/or public education signs.

2.8. Parks – Planting Vegetation (Starters)

Activities and Definition

Vegetation is a key component of establishing healthy ecosystems that hold water and nutrients on site.

Preparation

- a. Call the appropriate numbers for location of utilities.
- b. Decide where any spoils will be taken.

Process

- a. Dig holes; place spoils near the hole where they may easily be placed back around the roots. Avoid placing spoils into the gutter system.
- b. Bring each plant near the edge of the hole dug for it.
- c. Check the depth of the hole, and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.
- d. Carefully remove pot or burlap
- e. Place the plant in the hole
- f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.
- g. Water the plant.
- h. Stake the plant if necessary to stabilize it.

Clean-up/Follow-up

- a. Remove any extra spoils into truck or trailer. Place the spoils on a tarp if there is likelihood that some of the dirt would be lost through openings in the bed.
- b. Sweep dirt from surrounding pavement(s) into the planter area.
- c. Transport spoils to their designated fill or disposal area.

Documentation

- a. N/A

2.9. Parks – Planting Vegetation (Seeds)

Activities and Definition

Vegetation is a key component of establishing healthy ecosystems that hold water and nutrients on site.

Preparation

- a. Call the appropriate numbers for location of utilities.
- b. Decide where any spoils will be taken.
- c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.
- d. Grade and prepare soil to receive the seed. Place any extra soil in a convenient location to collect.

Process

- a. Place the seed and any cover using the pre-determined application method (and rate).
- b. Lightly moisten the seed.

Clean-up/Follow-up

- a. Remove any extra spoils into truck or trailer. Place the spoils on a tarp if there is likelihood that some of the dirt would be lost through openings in the bed.
- b. Sweep dirt from surrounding pavement(s) into the planter area.
- c. Transport spoils to their designated fill or disposal area.

Documentation

- a. N/A

2.10. Parks – Transporting Equipment

Activities and Definition

Equipment Transportation is a pivotal part of the daily activities that occurs on a daily basis.

Preparation

- a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.
- b. Conduct pre-trip inspection of equipment.

Process

- a. Load and secure equipment on trailer or truck.
- b. Load and secure fuel containers for equipment usage.

Clean-up/Follow-up

- a. Off load equipment.
- b. Store equipment and trailer in proper location.
- c. Conduct post-trip inspection of equipment.
- d. Wash equipment if needed, according to the written procedure for Cleaning Equipment.

Documentation

- a. Pre-trip and post-trip inspection report.

2.11. Sanitary Sewer Overflows

Activities and Definition

Sanitary sewer system even with high-performing operation and maintenance programs will experience overflows and backups from time to time. A proper response plan will help mitigate the effects of a backup and it will be necessary to contact the Minnesota State Duty Officer.

Preparation

- a. Train staff to make them aware of the need to report the spill and spill response/clean-up procedures.
- b. Have all equipment ready to assist with spill clean-up or containment (e.g., confined space entry equipment, safety gear, jet flushing unit/vacuum truck, pumps, disinfectants, televising equipment, etc.)
- c. Have sewer maps available.

Process

- a. Report sanitary sewer spill to Minnesota State Duty Officer at (651)-422-0798 or 1-800-422-0798.
- b. Typical information requested by the Minnesota State Duty Officer includes:
 - a. Name of caller
 - b. Date, time, and location of incident
 - c. Telephone number for call-backs at the scene or facility
 - d. Whether local officials have been notified
 - e. Materials and quantity involved in the incident
 - f. Incident location

- g. Responsible party
- h. Any surface waters or sewers impacted
- i. Present situation of the spill (on-going or contained)
- c. Inform the public if they are at risk (e.g., spill nears swimming beached, public drinking water intakes, and recreational areas. Notification mechanisms may include:
 - a. Hand delivery of door hangers
 - b. Temporary posting at impacted areas
 - c. Notifications in newspaper, radio announcements, messages on local access cable TV, messages on website, and social media.

Clean-up/Follow-up

- a. Clean-up spill
- b. Repair failing equipment
- c. Remove postings and announcements
- d. Develop plan to eliminate future occurrence

Documentation

- b. Time reported
- c. Who contacted
- d. Action taken
- e. Location.
- f. Receiving water impacted
- g. Estimate of the volume of the overflow
- h. Duration include start and stop time of overflow
- i. Description of what caused the overflow (e.g., plugged, lift station failed, storm water inflow)
- j. Steps taken or planned to reduce, eliminate, and prevent reoccurrence

2.12. Streets/Storm Drain – Catch Basin Cleaning

Activities and Definition

Catch Basin Cleaning needs to be completed on a regular basis to insure the functionality of the stormsewer system.

Preparation

- a. Clean sediment and trash off of grate.
- b. Do visual inspection on outside of grate.
- c. Make sure nothing needs to be replaced.
- d. Do inside visual inspection to see what needs to be cleaned.

Process

- a. Clean using a high powered vacuum truck to start sucking out standing water and sediment.
- b. Use a high pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the vacuum.
- c. After catch basin is clean, send the jetter of the vacuum truck downstream to clean pipe and pull back sediment that might have gotten downstream of pipe as needed.
- d. Move truck downstream of pipe to next catch basin.

Clean-up/Follow-up

- a. When vacuum truck is full of sediment, take it to the designated location to dump all the sediment out of truck into a drying bed.
- b. When it evaporates, clean it up with a backhoe/skid loader, put it into dump truck and take to permanent disposal site (landfill).

Documentation

- a. Keep logs of number of catch basins cleaned.
- b. Record the amount of waste collected from sump catch basins.
- c. Keep any notes or comments of any problems.
- d. Document the location where material is disposed.

2.13. Streets/Storm Drain – Detention Pond Cleaning

Activities and Definition

Storm drains are gateways that allow pollutants in stormwater to flow untreated from local streets to lakes, rivers and streams. Residual oil, grease, solids, antifreeze, cigarette butts, yard waste, plastic and other wastes found on roads, parking lots and driveways pollute downstream waters by increasing phosphorus levels, reducing oxygen levels and ultimately impairing aquatic habitat for fish and other organisms as well as drinking water sources.

Preparation

- a. Schedule the Pond cleaning work for a time when dry weather is expected.
- b. Remove any sediment and trash from grates, placing it in a truck for disposal.
- c. Do a visual inspection to make sure any grates, structures, manholes, and pipes are in good working order. Remove manhole covers and grates as necessary for inspecting.

Process

- a. Provide outlet protection where feasible to minimize the amount of debris that might leave basin during cleaning process.
- b. Start cleaning basin by using backhoe to remove debris and sediment off the bottom.
- c. Continue cleaning structures and pond bottom as necessary by sweeping and shoveling.
- d. Put all material removed from the pond into a dump truck.
- e. Some structures might require use of a vacuum truck. If so use the same procedures described for cleaning catch basins.

Clean-up/Follow-up

- a. After cleaning basins, clean off the concrete pads using dry methods (sweeping and shoveling)
- b. Make sure they are swept up and clean.
- c. Take the material that was removed to the landfill for final disposal.

Documentation

- a. Keep logs of each detention basins/pond cleaned including date, individuals involved in cleaning, and a description of the type of debris removed.
- b. Record the amount of waste collected.
- c. Keep any notes or comments of any problems.

2.14. Streets/Storm Drain – Creek Management

Activities and Definition

Storm drains, streets, and creeks are gateways that allow pollutants in stormwater to flow untreated from local streets to lakes, rivers and streams. Residual oil, grease, solids, antifreeze, cigarette butts, yard waste, plastic and other wastes found on roads, parking lots and driveways pollute downstream waters by increasing phosphorus levels, reducing oxygen levels and ultimately impairing aquatic habitat for fish and other organisms as well as drinking water sources.

Preparation

- a. Monitor streams on a regular basis (annually or more often in trouble locations)
- b. Maintain access to stream channels wherever possible.
- c. Identify areas requiring maintenance.
- d. Determine what manpower or equipment will be required.
- e. Identify access and easements to area requiring maintenance.
- f. Determine method of maintenance that will be least damaging to the channel.

- g. Obtain stream alteration permit. Exceptions will be allowed in emergency situations. Follow-up with appropriate regulatory agency to inform them of the emergency action that was necessary.

Process

- a. Remove unwanted material (debris, branches, soil) from the creek channel and place it in a truck to be hauled away.

Clean up / follow-up

- a. Stabilize all disturbed soils.
- b. Remove all tracking from paved surfaces near maintenance site, if applicable.
- c. Haul all debris or sediment removed from area to approved dumping site.

Documentation

- a. Keep log of actions performed including date and individuals involved.
- b. Record the amount of materials removed or imported.
- c. Keep any notes or comments of any problems.
- d. Use “before” and “after” photographs to document activities as applicable.

2.15. Streets/Storm Drain – Ditch Management

Activities and Definition

Storm drains are gateways that allow pollutants in stormwater to flow untreated from local streets to lakes, rivers and streams. Residual oil, grease, solids, antifreeze, cigarette butts, yard waste, plastic and other wastes found on roads, parking lots and driveways pollute downstream waters by increasing phosphorus levels, reducing oxygen levels and ultimately impairing aquatic habitat for fish and other organisms as well as drinking water sources.

Preparation

- a. Monitor ditches on a regular basis (annually).
- b. Maintain access to ditch channels wherever possible.

Process

- a. Identify areas requiring maintenance.
- b. Contact affected property owners and utility owners.
- c. Determine what manpower or equipment will be required.
- d. Identify access and easements to area requiring maintenance.
- e. Determine method of maintenance that will be least damaging to the channel and adjacent properties or utilities.

Clean-up/Follow-up

- a. Stabilize all disturbed soils.
- b. Remove all tracking from paved surfaces near maintenance site, if applicable.
- c. Haul all debris or sediment removed from area to approved dumping site.

Documentation

- a. Keep log of actions performed including date and individuals involved.
- b. Record the amount of materials removed or imported.
- c. Keep any notes or comments of any problems.

2.16. Streets/Storm Drain – Chip Seal

Activities and Definition

Pollutants collect on surfaces in between storm events as a result of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear. Chip sealing is a part of the maintenance of these surfaces that helps to prolong the life of the roadway.

Preparation

- a. Clean and dry areas where materials are to be applied.
- b. Apply temporary covers to gate valves and manholes. Install inlet protection to catch basins to prevent oil and materials from getting inside of them.

Process

- a. Apply emulsion at recommended rate.
- b. Spread chips closely behind emulsion distributor, slowly such that the chips do not roll when they hit the surface.
- c. Roll chips. Rollers follow closely behind the chip spreader. Roll entire surface twice.
- d. Maximum speed 5 mph.

Clean-up/Follow-up

- a. All loose aggregate is removed from the roadway by sweeping it up (see SOP for Street Sweeping).
- b. Excessive asphalt applications and spills are removed with shovels and scraping tools.
- c. Remove the temporary covers from manholes and catch basins. If it appears that any chip seal materials have gotten into the inlet boxes, remove the material according to the SOP for inlet boxes.

- d. Dispose of the waste material that has been swept and scraped up by taking it to the landfill.

Documentation

- a. Record location and date on the maintenance database and map.

2.17. Streets/Storm Drain – Overlays and Patching

Activities and Definition

Pollutants collect on surfaces in between storm events as a result of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear. Overlays and patching are a part of the maintenance of these surfaces that help prolong the life of the roadway.

Preparation

- a. Measure and mark locations of manholes and valves on the curb.
- b. Apply temporary covers to manholes and catch basins to prevent oil and materials from getting inside of them.
- c. Cracks should be properly sealed. Alligator cracks and potholes should be removed and patched. Rutting should be milled.
- d. Surface should be clean and dry.
- e. Uniform tack coat applied and cured prior to placement of overlay.
- f. If milling is required, install inlet protection as needed.

Process

- a. Check hot asphalt mix for proper temperature, percentage asphalt, gradation, air voids, and any other agency requirements.
- b. Raise manhole lids and valves to elevation of new asphalt surface with riser rings.
- c. Surface texture should be uniform, no tearing or scuffing.
- d. Rolling should be done to achieve proper in-place air void specification.

Clean up / follow-up

- a. Covering should be removed as soon as the threat of imported materials entering the system is reduced and prior to a storm event.
- b. After pavement has cooled, sweep gutters to remove loose aggregate.

Documentation

- a. Record location and date on the maintenance database and map.

2.19. Streets/Storm Drain – Crack Seal

Activities and Definition

Pollutants collect on surfaces in between storm events as a result of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear. Crack sealing is a part of the maintenance of these surfaces that help prolong the life of the roadway.

Preparation

- a. Apply temporary covers to manholes and catch basins to prevent oil and materials from getting inside of them.
- b. Remove weeds from the road.
- c. Air-blast the cracks to remove sediments from the crack to allow for proper adhesion.
- d. Ensure that surface is clean and dry.

Process

- a. Proper temperature of material should be maintained.
- b. Sufficient material is applied to form the specified configuration.

Clean-up/Follow-up

- a. Excessive sealant application or spills are removed.
- b. Sweep all loose debris from the pavement and dispose of it in the local landfill.

Documentation

- a. Record location and date on the maintenance database and map.

2.20. Streets/Storm Drain – Shouldering and Mowing

Activities and Definition

Pollutants collect on surfaces in between storm events as a result of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear, and litter from adjacent lawn maintenance (grass clippings). The shoulders of the road should be properly maintained to insure infiltration and other techniques for stormwater run-off are working with the most efficiency.

Preparation

- a. Set up temporary traffic control devices

Process

- a. Place import material as needed and perform grading to achieve proper drainage.
- b. Mulch clippings to help reduce the amount of supplemental fertilizer required.

Clean up / follow-up

- a. Clean any loose material off asphalt or gutter.

Documentation

- a. Record location and date on the maintenance database and map.

2.21. Streets/Storm Drain – Concrete Work

Activities and Definition

The use of concrete is a common practice for BMP maintenance, proper management of those materials is critical for pollution prevention.

Preparation

- a. Train employees and contractors in proper concrete waste management.
- b. Store dry and wet materials under cover, away from drainage areas.
- c. Remove any damaged concrete that may need to be replaced.
- d. Prepare and compact sub-base.
- e. Set forms and place any reinforcing steel that may be required.
- f. Determine how much new concrete will be needed.
- g. Locate or construct approved concrete washout facility.

Process

- a. Install inlet protection as needed.
- b. Avoid mixing excess amounts of fresh concrete on-site.
- c. Moisten sub-base just prior to placing new concrete. This helps keep the soil from wicking moisture out of the concrete into the ground.
- d. Place new concrete in forms.
- e. Consolidate new concrete.
- f. Screed off surface.
- g. Let concrete obtain its initial set.
- h. Apply appropriate surface finish.
- i. Remove forms when concrete will not slump.

Clean-up/Follow-up

- a. Perform washout of concrete trucks and equipment in designated areas only.

- b. Do not washout concrete trucks or equipment into stormdrains, open ditches, streets or streams.
- c. Cement and concrete dust from grinding activities is swept up and removed from the site.
- d. Remove dirt or debris from street and gutter.

Documentation

- a. N/A

2.22. Streets/Storm Drain – Garbage Storage

Activities and Definition

Illegal dumping of non-hazardous household waste and improper dumping of yard waste in streets, storm drains, wetlands, lakes, and other water bodies pollutes surface waters. Non-hazardous household waste includes items such as tires, furniture, common household appliances and other bulk items. Yard waste includes any organic debris such as grass clippings, leaves, and tree branches.

Preparation

- a. Locate dumpsters and trash cans with lids in convenient, easily observable areas.
- b. Provide properly labeled recycling bins to reduce the amount of garbage disposed.
- c. Provide training to employees to prevent improper disposal of general trash.

Process

- a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
- b. Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.
- c. Install berms, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
- d. Keep lids closed when not actively filling dumpster.

Clean-up/Follow-up

- a. Keep areas around dumpsters clean of all garbage.
- b. Have garbage bins emptied as often as needed to keep from overflowing.
- c. Wash out bins or dumpsters as needed to keep odors from becoming a problem. Wash out in properly designated areas only.

Documentation

- a. N/A

2.23. Streets/Storm Drain – Snow Removal and De-icing

Activities and Definition

The concentration of chloride is increasing in our surface and ground water largely due to stormwater runoff from road salt storage piles, areas of excessive application, or simply from years of repeated application since chloride does not degrade in soil and water. Chloride in road salt and road salt additives (e.g. Ferro cyanide for anti-caking) can create toxic conditions for fish, insects and vegetation.

Preparation

- a. Store de-icing material under a covered storage area or in an area where water coming off the de-icing materials is collected and delivered to the sanitary sewer or reused as salt brine.
- b. Slope loading area away from storm drain inlets.
- c. Design drainage from loading area to collect runoff before entering stormwater system.
- d. Washout vehicles (if necessary) in approved washout area before preparing them for snow removal.
- e. Calibrate spreaders to minimize amount of de-icing material used and still be effective.
- f. Provide vehicles with spill cleanup kits in case of hydraulic line rupture or other spill.
- g. Train employees in spill cleanup procedures and proper handling and storage of de-icing materials.

Process

- a. Load material into trucks carefully to minimize spillage.
- b. Periodically dry sweep loading area to reduce the amount of de-icing materials exposed to runoff.
- c. Distribute the minimum amount of de-icing material to be effective on the roads.
- d. Do not allow spreaders to idle while distributing de-icing materials.
- e. Park trucks loaded with de-icing materials inside when possible.

Clean-up/Follow-up

- a. Sweep up all spilled de-icing material around loading area.
- b. Clean out trucks after snow removal duty in approved washout area.
- c. Provide maintenance for vehicles in covered areas.
- d. If sand is used in de-icing operations, sweep up residual sand from streets when weather permits.

Documentation

- a. Activities are tracked through Precise software.

2.24. Streets/Storm Drain – Street Sweeping

Activities and Definition

Pollutants collect on surfaces in between storm events as a result of atmospheric deposition, vehicle emissions, winter road maintenance, construction site debris, trash, road wear and tear, and litter from adjacent lawn maintenance (grass clippings). Sweeping of materials such as sand, salt, leaves and debris from city streets, parking lots and sidewalks prevents them from being washed into storm sewers and surface waters. Timing, frequency and critical area targeting greatly influence the effectiveness of sweeping.

Preparation

- a. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading.
- b. Restrict street parking prior to and during sweeping using regulations as necessary.
- c. Increase sweeping frequency just before the rainy season, unless sweeping occurs continuously throughout the year.
- d. Perform preventative maintenance and services on sweepers to increase and maintain their efficiency.

Process

- a. Streets are to be swept as needed or specified by the City. Street maps are used to ensure all streets are swept at a specific interval.
- b. Drive street sweeper safely and pickup debris.
- c. When full take the sweeper to an approved street sweeper cleaning station.

Clean-up/Follow-up

- a. Street sweepers are to be cleaned out in an approved street sweeper cleaning station.
- b. Street sweeping cleaning stations shall separate the solids from the liquids.
- c. Once solids have dried out, haul them to the local landfill.
- d. Decant water is to be collected and routed to an approved wastewater collection system area only.
- e. Haul all dumped material to the landfill.

Documentation

- a. Keep accurate logs to track streets swept and streets still requiring sweeping.
- b. Log the amount of debris collected and hauled off.

2.25. Streets/Storm Drain – Transporting Soil and Gravel

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

- a. Dry out wet materials before transporting.
- b. Spray down dusty materials to keep from blowing.
- c. Make sure you know and understand the SWPPP requirements for the site you will be working at.
- d. Determine the location that the truck and other equipment will be cleaned afterwards.

Process

- a. Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.
- b. Cover truck bed with a secured tarp before transporting.
- c. Follow the SWPPP requirements for the specific site to/from which the materials are being hauled.
- d. Make sure not to overfill materials when loading trucks.

Clean-up/Follow-up

- a. Use sweeper to clean up any materials tracked out on the roads from site.
- b. Washout truck and other equipment when needed in properly designated area.

Documentation

- a. Keep records of any material that is tracked out of site and what was done to clean it up and how long it took to clean up and what the weather conditions were at the time.

2.26. Vehicles – Fueling

Activities and Definition

Fueling of equipment and vehicles should always occur in designated areas when possible. Spill prevention and planning should occur before any fueling takes place.

Preparation

- a. Train employees on proper fueling methods and spill cleanup techniques.
- b. A canopy is provided at the City of Edina’s public works facility. Install a canopy or roof over aboveground storage tanks at other locations where fuel is being stored.
- c. Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on mobile fueling vehicles and shall be disposed of properly after use.

Process

- a. Shut off the engine
- b. Ensure that the fuel is the proper type of fuel for the vehicle.
- c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overflow.
- d. Fuel vehicle carefully to minimize drips to the ground.
- e. Fuel tanks shall not be topped off.
- f. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the Facilities area.
- g. When fueling small equipment from portable containers, fuel in an area away from stormdrains and water bodies.

Clean-up/Follow-up

- a. Immediately clean up spills using dry absorbent (e.g. kitty litter, sawdust) sweep up absorbent material and properly dispose of contaminated clean up materials.
- b. Large spills shall be contained as best as possible and the Duty officer and Hazmat team should be notified as soon as possible.

Documentation

- a. Comply with underground storage tank records and monitoring requirements.
- b. Document training of employees.

2.27. Vehicles – Vehicle and Equipment Storage

Activities and Definition

When hazardous material comes into contact with rain or snow, the pollutants are washed into the storm sewer system and, ultimately, to surface water bodies and/or ground water. Hazardous materials have negative impacts on fish habitat, ground water drinking water sources, and recreational uses.

Preparation

- a. Inspect parking areas for stains/leaks on a regular basis.
- b. Provide drip pans or absorbents for leaking vehicles.

Process

- a. Whenever possible, store vehicles inside where floor drains have been connected to sanitary sewer systems.
- b. When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.
- c. Maintain vehicles to prevent leaks as much as possible.
- d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle.
- e. The shop will provide a labeled location to empty and store drip pans.
- f. Clean up all spills using dry methods.
- g. Never store leaking vehicles over a storm drain.

Clean-up/Follow-up

- a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent; the dry absorbent will be swept up and disposed of in the garbage.
- b. The paved surfaces around the building will be swept monthly, weather permitting.

Documentation

- a. N/A

2.28. Vehicles – Washing

Activities and Definition

MS4 vehicle washing involves the removal of dust and dirt from the exterior of trucks, boats and other vehicles, as well as the cleaning of cargo areas and engines and other mechanical parts. Washing of vehicles and equipment generates oil, grease, sediment and

metals in the wash water as well as degreasing solvents, cleaning solutions and detergents used in the cleaning operations.

Preparation

- a. Provide wash areas for small vehicles inside the maintenance building that has a drain system which is attached to the sanitary sewer system.
- b. Provide wash areas for large vehicles on an approved outside wash pad that has a drain system which is attached to the sanitary sewer system.
- c. No vehicle washing will be done where the drain system is connected to the storm sewer system.

Process

- a. Minimize water and soap use when washing vehicles inside the shop building.
- b. Soap should not be used when washing vehicles outside the shop building.
- c. Use hoses with automatic shut off nozzles to minimize water usage.
- d. When washing outside the building, it is the operator's responsibility to make sure all wash water is contained on the wash pad and does not have access to the storm drain.
- e. Never wash vehicles over a storm drain.

Clean-up/Follow-up

- a. Sweep wash areas after every washing to collect what solids can be collected to prevent them from washing down the drain system.
- b. Clean solids from the settling pits on an as needed basis.

Documentation

- a. N/A

2.29. Water – Planned Waterline Excavation Repair/Replacement

Activities and Definition

Waterline excavation and repair of an MS4 system can potentially involve activities that could affect the health of the MS4 system. Planning is critical and all projects would require the development of a SWPPP for projects disturbing 1 acre or greater and for projects less than 1 acre at a minimum will require that erosion and sediment controls be included.

Preparation

- a. Develop SWPPP.
- b. Obtain NPDES permit for project 1 acre or greater.

- c. Neutralize any chlorine residual before discharging water through natural aeration.

Process

- a. Install erosion and sediment control.
- b. Provide stockpile perimeter control on pavements (e.g. compost logs, rock logs).
- c. Make efforts to keep water from pipeline from entering the excavation.
- d. Direct any discharge to pre-determined area.
- e. Backfill and compact excavation.
- f. Haul of excavated material or stock pile nearby.

Clean-up/Follow-up

- a. Clear gutter /waterway where water flowed.
- b. Clean up all areas around excavation.
- c. Clean up travel path of trucked material.
- d. Restore disturbed soils with seed and temporary erosion protection or sod.

Documentation

- a. Complete inspections every 7 days and after each rainfall event ½ inch or greater. The weekly inspection can be scheduled to occur 7 days after a rainfall event inspection.
- b. Amend the SWPPP as necessary to reflect changes that were necessary to control erosion throughout construction.

2.30. Water – Unplanned Waterline Excavation Repair/Replacement

Activities and Definition

Waterline Excavation and Repair of an MS4 system can potentially involve activities that could affect the health of the MS4 system. Unplanned excavations can be additionally tricky and pre-planning is critical.

Preparation

- a. Make sure service trucks have wattles, gravel bags, or other materials for inlet protection.

Process

- a. Slow the discharge.
- b. Inspect flow path of discharge water.
- c. Protect water inlet areas.
- d. Follow planned repair procedures.

- e. Haul off spoils of excavation.
- f. Consider use of silt filter bags on pumps.

Clean-up/Follow-up

- a. Repair eroded areas as needed.
- b. Follow planned repair procedures.
- c. Clean up the travel path of trucked excavated material.

Documentation

- a. Complete paperwork.

2.31. Water – Transporting Dry Excavated Materials and Spoils

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

- a. Utilize truck with proper containment of materials.
- b. Determine disposal site of excavated materials.

Process

- a. Load
- b. Check truck after loading for possible spillage.
- c. Transport in manner to eliminate spillage and tracking.
- d. Utilize one route for transporting.

Clean-up/Follow-up

- a. Clean loading area.
- b. Clean transporting route.
- c. Wash off truck and other equipment in a designated equipment cleaning area.

Documentation

- a. Complete paperwork.

2.32. Water – Transporting Wet Excavated Materials & Spoils

Activities and Definition

Transportation of materials should be handled with pre-planning and contingency planning.

Preparation

- a. Utilize truck with containment for material.
- b. Determine disposal site of excavated material.

Process

- a. Load and transport in manner to minimize spillage & tracking of material.
- b. Check truck for spillage.
- c. Utilize one route of transport.

Clean-up/Follow-up

- a. Clean route of transport to provide cleaning of any spilled material.
- b. Washout equipment truck and other equipment in designated wash area.

Documentation

- a. Complete paperwork.

2.33. Water – Waterline Flushing for Routine Maintenance

Activities and Definition

Flushing is a process that rapidly removes water from the City's water piping system. Flushing uses water force to scour out materials that accumulate in the City's pipes. Water pipes are usually flushed by opening fire hydrants, where the discharged water flows off the streets the same as rainwater.

Preparation

- a. Determine flow path of discharge to inlet of waterway.
- b. Determine chlorine residual.
- c. Chlorine residual is neutralized through natural aeration.

Process

- a. Clean flow path.
- b. Protect inlet structures.

- c. Use diffuser to dissipate pressure to reduce erosion possibilities.

Clean-up/Follow-up

- a. Clean flow path.
- b. Remove inlet protection

Documentation

- a. Residual tests of discharge water.
- b. Complete paperwork.

- 2.34. Water – Waterline Flushing after Construction/System Disinfection with Discharge to Storm Drain.

Activities and Definition

Flushing is a process that rapidly removes water from the City's water piping system. Flushing uses water force to scour out materials that accumulate in the City's pipes. Water pipes are usually flushed by opening fire hydrants, where the discharged water flows off the streets the same as rainwater. These projects are done as part of overall road reconstruction projects and utility projects and will be the contractor's responsibility to follow the procedures outlined below.

Preparation

- a. Determine chlorine content of discharge water, and select de-chlorination equipment to be used.
- b. Determine flow path of discharge.

Process

- a. Protect inlets in flow path.
- b. Install de-chlorination equipment.
- c. Sweep and clean flow path.
- d. Use diffuser to reduce velocities.

Clean-up/Follow-up

- a. Pick up inlet protection.
- b. Clean flow paths.
- c. Remove equipment from flush point.

Documentation

- a. Residual tests of discharge water.
- b. Complete paperwork.

2.35. Water – Chemical Handling/Transporting and Spill Release

Activities and Definition

Hotspot facilities are facilities that produce higher levels of stormwater pollutants and/or present a higher potential risk for spills, leaks or illicit discharges. Hazardous material storage and handling is of particular concern in these areas.

Preparation

- a. Understand MSDS sheets for handling of product.
- b. Determine proper place of handling.
- c. Have necessary containment and spill kits at handling place.

Process

- a. Begin transfer process.
- b. Discontinue operations if a spill level occurs.
- c. Disconnect and store handling equipment.

Clean-up/Follow-up

- a. Clean up spills with proper material.
- b. Dispose of contaminated material at appropriate facility.

Documentation

- a. Report spills to duty officer.
- b. Complete paperwork.

MINIMUM CONTROL MEASURE 6

Appendix A Facility Inventory



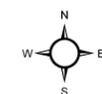
City of Edina, Minnesota

Facility Inventory

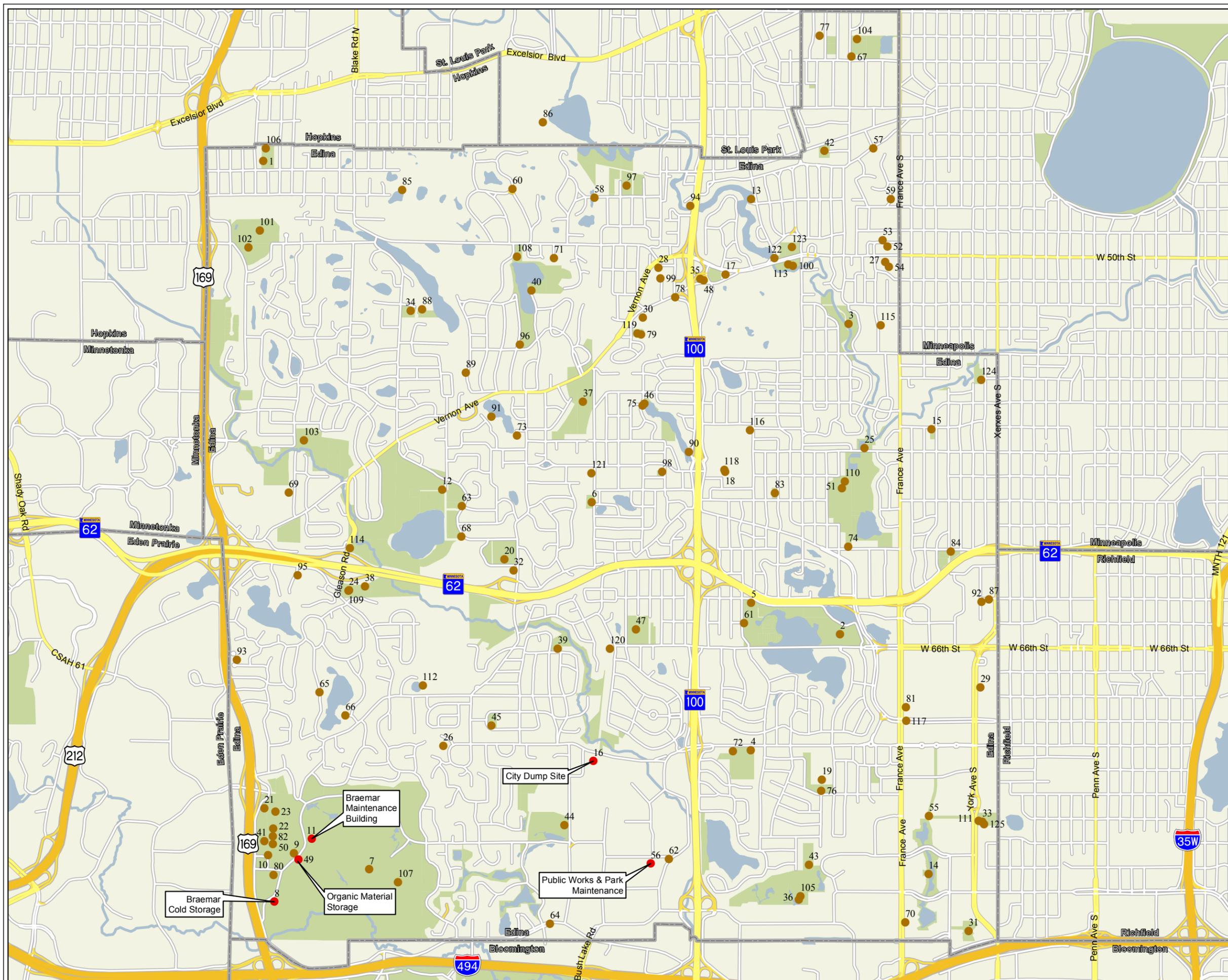
Legend

Facility Locations

- Pollutant of Concern Present
- No Pollutant of Concern Present



0 2,500 5,000 Feet





City of Edina, Minnesota

Facility Inventory Index

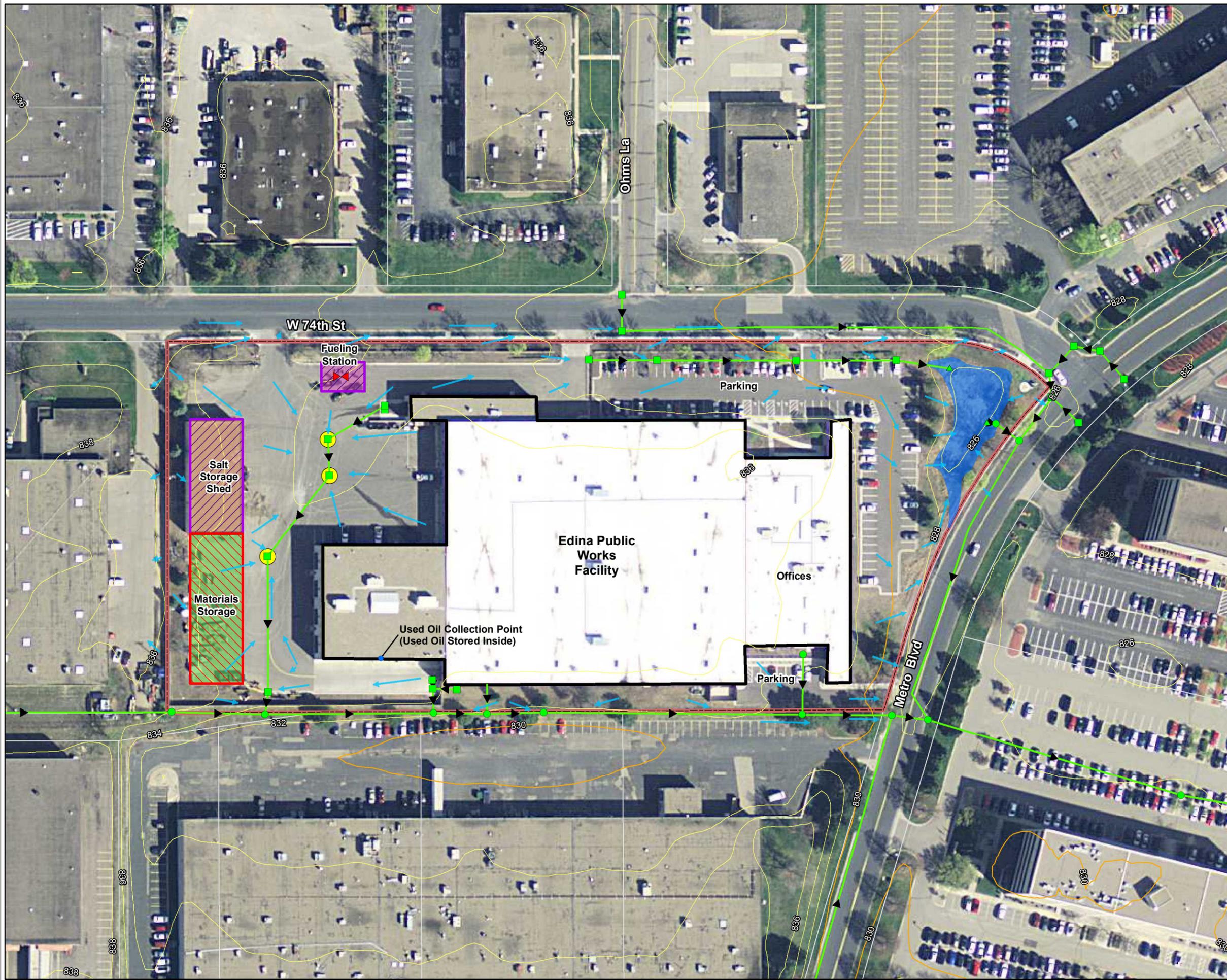
ID	Name	Address	POC Present
1	Alden Park	6750 Belmore Ln	N
2	Aquatic Center	4300 W 66th St	N
3	Arden Park	5230 Minnehah Blvd	N
4	Arneson Acres	4711 W 70th St	N
5	Art Center	4701 W 64th St	N
6	Birchcrest Park	6016 Hansen Rd	N
7	Braemar Clubhouse	6364 John Harris Dr	N
8	Braemar Cold Storage	7600 Braemar Blvd	Y
9	Braemar Golf Dome	7420 Braemar Blvd	N
10	Braemar Ice Arena	7501 Ikola Way	N
11	Braemar Maintenance Building	7400 Braemar Blvd	Y
12	Bredesen Park	5901 Olinger Blvd	N
13	Browndale Park	4510 Browndale Ave	N
14	Centennial Lakes	7499 France Ave	N
15	Chowen Park	5700 Chowen Avenue South	N
16	City Dump Site	W 70th St & Amundson Ave	Y
17	City Hall	4801 W 50th St	N
18	Community Center Water Tower #3	5849 Ruth Dr	N
19	Cornelia School Park	7142 Cornelia Drive	N
20	Countryside Park	6240 Tracy Avenue South	N
21	Courtney Fields Maintenance Building	7347 McCauley Trl S	N
22	Courtney Fields Picnic Building	7359 McCauley Trl S	N
23	Courtney Fileds Consession Building	7351 McCauley Trl S	N
24	Creek Valley School Park	6301 Gleason Road	N
25	Diversion Tank	W 58th St	N
26	Dublin Reservoir	7000 Dublin Rd	N
27	Edina Liquor	3943 W 50th St	N
28	Edina Liquor	5013 Vernon Ave	N
29	Edina Liquor	6755 York Ave	N
30	Edina Senior Center & Public Library	5280 Grandview Sq	N
31	Edinbororugh Park	7700 York Ave S	N
32	Fire Station 1	6250 Tracy Ave	N
33	Fire Station 2	7335 York Ave S	N
34	Fox Meadow Park	5251 Blake Road	N
35	Frank Tupa Park Grange Building	4924 Eden Ave	N
36	Fred Richards Clubhouse	7640 Parklawn Ave	N
37	Garden Park	5520 Hansen Road	N
38	Gleason Water Tower #2	6301 Gleason Rd	N
39	Heights Park	5500 West 66th Street	N
40	Highlands Park	5200 Doncaster Way	N
41	Hornets Nest	7505 Ikola Way	N
42	Kojetin Park	4201 West 44th Street	N
43	Lake Edina Park	4400 Parklawn Avenue	N
44	Lewis Park	7300 Cahill Road	N
45	McGuire Park	69th Street and McGuire Road	N
46	Melody Lake Park	5601 Melody Lake Drive	N
47	Normandale Park	6501 Warren Avenue South	N
48	Old Cahill School	4918 Eden Ave	N
49	Organic Material Storage	Braemar Blvd (across from Golf Dome)	Y
50	Outdoor Ice Sheet	7513 Ikola Way	N
51	Pamela Park	4303 W. 58th Street	N
52	Parking Ramp - Middle	3925 W 49 1/2 St	N
53	Parking Ramp - North	3936 W 49 1/2 St	N
54	Parking Ramp - South	4050 W 51st St	N
55	Promenade	NE Centennial Lakes	N
56	Public Works & Park Maintenance	7450 Metro Blvd	Y
57	San Lift Station #1	4041 Sunnyside Rd	N
58	San Lift Station #10	5351 Division St	N
59	San Lift Station #11	4707 Meadow Rd	N
60	San Lift Station #12	4709 Annaway Dr	N
61	San Lift Station #13	4720 W 65th St	N
62	San Lift Station #14	7433 Metro Blvd	N
63	San Lift Station #15	6100 Olinger Blvd	N

ID	Name	Address	POC Present
64	San Lift Station #16	5557 W 78th St	N
65	San Lift Station #17	6630 Dakota Tr	N
66	San Lift Station #18	6826 Cheyenne Cir	N
67	San Lift Station #2	4200 GRIMES AVE	N
68	San Lift Station #20	5901 W 62nd St	N
69	San Lift Station #21	5970 Walnut Dr	N
70	San Lift Station #22	7701 France Ave	N
71	San Lift Station #23	5045 Interlachen Bluff	N
72	San Lift Station #25	4711 70TH ST W	N
73	San Lift Station #3	5707 Warden Ave	N
74	San Lift Station #4	4134 W 62nd St	N
75	San Lift Station #5	5601 Code Ave	N
76	San Lift Station #6	4400 W 72nd St	N
77	San Lift Station #8	4023 Monterey Ave	N
78	San Lift Station #9	5143 Eden Ave	N
79	Sherwood Park	5241 Eden Circle	N
80	South Metro Public Safety Training Center	7525 Braemar Blvd	N
81	Southdale Water Tower #4	6853 France Ave	N
82	Sports Dome	7509 Ikola Way	N
83	St. John's Park	5924 St. John's Ave	N
84	Strachauer Park	6200 Beard Avenue	N
85	Strm Lift Station #1	6202 Interlachen Blvd	N
86	Strm Lift Station #10	6601 Excelsoir Blvd	N
87	Strm Lift Station #11	6400 Xerxes Ave	N
88	Strm Lift Station #12	6001 Fox Meadow Ln	N
89	Strm Lift Station #2	5524 Dundee Rd	N
90	Strm Lift Station #3	5800 Normandale Rd	N
91	Strm Lift Station #4	5619 Wycliffe Rd	N
92	Strm Lift Station #5	6413 York Ave	N
93	Strm Lift Station #6	6734 Apache Rd	N
94	Strm Lift Station #7	4609 Cascade Ln	N
95	Strm Lift Station #8	6303 Timber Trl	N
96	Strm Lift Station #9	5407 Glengarry Pkwy	N
97	T. Lea Todd Park	4429 Vandervork Avenue South	N
98	Tingdale Park	5800 W. 59th St.	N
99	Treatment Plant #6	5120 Brookside Ave	N
100	Utley Park	4521 W. 50th St.	N
101	Van Valkenburg Park	4935 Lincoln Drive South	N
102	Van Valkenburg Water Tower #5	4949 Malibu Dr	N
103	Walnut Ridge Park	5801 Londonderry Road	N
104	Weber Field Park	4115 Grimes Avenue South	N
105	Well #10 & #11 & Treatment Plant #3	7636 Parklawn Ave	N
106	Well #12 & #13 & Treatment Plant #4	6721 2nd St S	N
107	Well #14	6205 John Harris Dr	N
108	Well #15	5005 Mirror Lakes Dr	N
109	Well #16	6301 Gleason Rd	N
110	Well #17	5900 Park Pl	N
111	Well #18	7305 York Ave	N
112	Well #19	6754 Valley View Rd	N
113	Well #2	4521 W 50th St	N
114	Well #20	6231 Gleason Rd	N
115	Well #3	5233 Halifax Ave	N
116	Well #4	4701 Southview Ln	N
117	Well #5	3850 W 69th St	N
118	Well #6 & Treatment Plant #2	5849 Ruth Rd	N
119	Well #7	5225 Sherwood Rd	N
120	Well #8	6600 Ridgeview Dr	N
121	Well #9	5904 Hansen Rd	N
122	Williams Park	50th Street and Browndale Avenue	N
123	Wooddale Park	4500 W. 50th Street	N
124	York Park	5448 York Avenue South	N
125	Yorktown Park	7335 York Avenue S	N



City of Edina, Minnesota

Public Works Facility



Legend

- Project Boundary
- Building Footprint
- Drainage
- Storm Sewer Pipe
- Storm Sewer Catch Basin
- Storm Sewer Manhole
- Storm Sewer Sump
- Storm Sewer Treatment Structure
- Storm Sewer Flared End
- 10-Foot Contour
- 2-Foot Contour

Existing Best Management Practices

- Cover
- Infiltration

Stormwater Hot Spots

- Fueling Station
- Materials Storage
- Salt Storage Shed

Proposed Best Management Practices

- Inlet Protection
- Spill Kit
- Cover or Provide Perimeter Control





City of Edina, Minnesota

City Dump Site



Legend

-  Project Boundary
-  Building Footprint
-  Drainage
-  Storm Sewer Pipe
-  Storm Sewer Catch Basin
-  Storm Sewer Manhole
-  Storm Sewer Sump
-  Storm Sewer Treatment Structure
-  Storm Sewer Flared End
-  10-Foot Contour
-  2-Foot Contour

Stormwater Hot Spots

-  Materials Storage

Proposed Best Management Practices

-  Perimeter Protection





City of Edina, Minnesota

Braemar Cold Storage

Legend

-  Approximate Project Boundary
-  Building Footprint
-  Drainage
-  Storm Sewer Pipe
-  Storm Sewer Catch Basin
-  Storm Sewer Manhole
-  Storm Sewer Sump
-  Storm Sewer Treatment Structure
-  Storm Sewer Flared End
-  10-Foot Contour
-  2-Foot Contour

Existing Best Management Practices

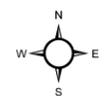
-  Infiltration

Stormwater Hot Spots

-  Materials Storage

Proposed Best Management Practices

-  Inlet Protection
-  Perimeter Protection



0 100 200 Feet





City of Edina, Minnesota

Braemar Maintenance Building



Legend

- Approximate Project Boundary
- Building Footprint
- Drainage
- Storm Sewer Pipe
- Storm Sewer Catch Basin
- Storm Sewer Manhole
- Storm Sewer Sump
- Storm Sewer Treatment Structure
- Storm Sewer Flared End
- 10-Foot Contour
- 2-Foot Contour

Existing Best Management Practices

- Cover
- Fueling Station
- Materials Storage

Proposed Best Management Practices

- Spill Kit



0 100 200 Feet



City of Edina, Minnesota

Organic Material Storage

Legend

-  Approximate Project Boundary
-  Building Footprint
-  Drainage
-  Storm Sewer Pipe
-  Storm Sewer Catch Basin
-  Storm Sewer Manhole
-  Storm Sewer Sump
-  Storm Sewer Treatment Structure
-  Storm Sewer Flared End
-  10-Foot Contour
-  2-Foot Contour

Stormwater Hot Spots

-  Materials Storage

Proposed Best Management Practices

-  Perimeter Protection



MINIMUM CONTROL MEASURE 6

Appendix B Inspection Forms



City of Edina

Standard Operating Procedures for Facility Inspection

Purpose:

The purpose of this SOP is to prolong the functional life of city owned facilities within Edina. Performing maintenance to city owned facilities is critical for the long-term operation of the MS4 system and to minimize the discharge of pollutants into the MS4 system. Equipment will also have prolonged life when properly maintained.

Description:

City owned facilities are those facilities that contribute pollutants to stormwater discharges. Facility operators are required to use the following checklist to evaluate whether the activities and the best management practices are functioning in accordance with the MS4 permit. The following municipal facilities need to be inspected quarterly:



- Braemar Cold Storage
- Braemar Maintenance Building
- City Dump Site
- Organic Material Storage
- Public Works & Park Maintenance

Primary Operational Procedures:

Maintenance:

There are several maintenance activities that may be associated with facility inspections. The appropriate activity will be chosen to correspond to the reported condition and based on the BMPs identified on the facility maps (Appendix A). The following activities are addressed:

1. Good Housekeeping
2. General Practices
3. Landscape Maintenance
4. Building Maintenance
5. Material Storage
6. Secondary Containment
7. Equipment Storage
8. Vehicle and Equipment Fueling
9. Vehicle and Equipment Maintenance
10. Loading Docks
11. Waste Management
12. Hazardous Waste Management
13. Spill Cleanup and Prevention

Facility ID:	Location:
Completed by:	Signature:
Date:	Date of pervious inspection:

Activities	Yes ✓	No ✓	NA ✓	Comments
Good Housekeeping				
Outdoor work areas and storage areas are neat and tidy.				
Access roads and parking lots are inspected for excess dirt, debris, and oil drips and are cleaned as necessary.				
General Practices				
A map of the property is available identifying the direction of stormwater flow and the location of storm drains.				
Storm drains are free of debris and stains of oil and chemicals.				
Nearby water bodies (streams, ponds, etc.) and drainage ditches are free of trash, oily sheen, foam, etc. that may be coming from the facility.				
Materials found in nearby waterbodies and drainage ditches are cleaned up.				
Landscape Maintenance				
Landscape waste and materials (i.e., grass clippings, compost, mulch) are stored in a covered, bermed, or contained area.				
Piles of mulch, compost, or yard waste are not kept next to streams, channels, or storm drain inlets.				
Grass clippings are left on the grass after mowing.				
Clippings and debris are swept off sidewalks/pavement after mowing.				
No pesticides/herbicides are sprayed near surface waters, creeks, ditches, or storm drains.				
Spot spraying is performed for weed and insect control (broadcast spraying is avoided).				
Building Maintenance				
Surface or pressure washing wastewater is directed to nearby landscaping or is allowed to evaporate if no chemicals or detergents are used and only ambient dirt is being cleaned.				
Wastewater is sent to the sanitary sewer system when chemicals or soap are being used or if materials other than ambient dirt are being cleaned from the pavement.				
Dry clean-up methods are used before pressure washing is performed (including using absorbents to clean up spills, sweeping, vacuuming, and scraping off dried debris) and debris is disposed of properly.				
Material Storage				
Materials that are potential stormwater contaminants (see Page 1) are stored under cover or in appropriately sized secondary containment.				
Materials are not loaded or unloaded near storm drain inlets or drainage ditches or over unpaved surfaces unless drains are protected.				
Unused materials are kept in original containers which are labeled to identify contents.				
Materials are not stored next to waterbodies (streams, drainage channels, etc.).				
Sand is stored under cover or in bermed location.				
Salt is stored under cover.				
55-gallon drums, bulk storage tanks, or other containers				

Activities	Yes ✓	No ✓	NA ✓	Comments
stored outside are specifically designed for outdoor storage.				
Secondary Containment				
The structure of secondary containment is sound.				
Water in secondary containment structures is inspected for contaminants and drained as needed.				
Contaminants and contaminated water in secondary containment is drained to the sanitary sewer or other appropriate facility.				
Equipment Storage				
Equipment is stored under cover when possible.				
Equipment is inspected regularly for spills and leaks due to operator error or equipment failure.				
Any spills and leaks from equipment are cleaned up promptly.				
Preventative maintenance is routinely performed on equipment to prevent leaks.				
Vehicle and Equipment Fueling				
Signs are present at fueling stations that prohibit "topping off" and describe spill procedures.				
Drips and leaks are spot cleaned promptly and absorbent is collected and disposed of properly.				
Fueling equipment/tanks are properly maintained and labeled (i.e., overflow protection devices, automatic shut-off valves, etc.)				
Vehicle and Equipment Maintenance				
Vehicle maintenance activities are conducted in specified area not exposed to stormwater.				
If vehicle/equipment maintenance is performed outside drip pans are placed under places where spills can occur (i.e., hose connections, filler nozzles, etc.)				
Leaking vehicles are reported to fleet maintenance.				
Vehicle and Equipment Washing				
Washwater is directed to nearby landscaping or is allowed to evaporate if no chemicals or detergents are used and only ambient dirt is being cleaned.				
Washwater is sent to the sanitary sewer system when chemicals or soap are being used or if materials other than ambient dirt are being cleaned from the pavement.				
Waste Management				
Waste is properly disposed of.				
Dumpsters or outdoor trash containers are covered at all times unless in use.				
Hazardous Waste Management				
Hazardous materials are properly labeled to identify material.				
Hazardous materials are stored to prevent exposure to stormwater runoff.				
Spill Cleanup and Prevention				
The facility has a spill response plan that is readily accessible.				
Fueling stations/islands have spill kits with absorbents immediately accessible.				
Spill kits are complete and restocked.				
Spills are cleaned up promptly.				
All employees know where spill kits are located.				
Employees are trained in proper spill containment and cleanup.				
Phone numbers and contact information for spill reporting is readily available.				



City of Edina

Standard Operating Procedures for

Pond Maintenance

Purpose:

The purpose of this SOP is to prolong the functional life of Storm Water Ponds within the city of Edina. Performing maintenance to stormwater ponds is critical for the long-term operation of the MS4 system. Removing sediment and debris on a regular basis will help insure that the system is getting the most TP and TSS removal from each stormwater BMP.



Description:

Storm water ponds remove pollutants transported by rain events through settling and biological uptake. To function properly, storm water ponds need to have volume to hold water and wetland plants along the pond edges and shallow areas. Storm water ponds often have an inlet structure, forebay, permanent pool with possible liner, an outlet structure, an emergency spillway, and an access road.

Primary Operational Procedures:

Maintenance:

There are several maintenance activities that may be associated with a wet detention system. The appropriate activity will be chosen to correspond to the reported condition. The following activities may be required:

1. Regular and Routine Inspections of BMPs.
2. Maintain and re-establish any eroded areas on side slopes.
3. Repair any undercutting or piping around inflow and/or outflow structure(s).
4. Remove trash and debris from system and dispose of properly.
5. Remove accumulated sediment from the inflow and/or outflow pipe and dispose of properly.
6. Remove any trees or shrubs that may have become established near the discharge structure/pipe.
7. Remove exotic vegetation from the littoral zone (if applicable) and replant as needed.
8. Remove accumulated sediment from basin to restore design storage volume.

Facility ID:	Location:
Completed by:	Signature:
Date:	Inspection conducted ____ days/hours after ½ inch rainfall event.
Facility Type:	<input type="checkbox"/> Pond <input type="checkbox"/> Outfall <input type="checkbox"/> Structural Stormwater BMP <input type="checkbox"/> Other

Activities	Yes√	No√	NA√	Comments
Illicit Discharge Evaluation				
Odor to discharge?				
Color to discharge?				
Floatables in discharge?				
Stains/Deposits in structure?				
Additional Comments:				
Functional Evaluation (0 – acceptable, 1 – item needs maintenance, 2 – immediate repair)				
Stabilization condition.	RATE: 0 / 1 / 2			
Structural Condition	RATE: 0 / 1 / 2			
Flow Description	NONE / TRICKLE / MODERATE / SUBSTANTIAL			
Approximate Depth of Flow				
Visible Sediment?				
Amount of Sediment Build-up	RATE: 0 / 1 / 2			
Additional Comments:				
Erosion				
Vegetation on side slopes failing?				
Any signs of erosion?				
Additional Comments:				
Inflow Structure				
Any signs of erosion?				
Any signs of structure settling?				
Any signs of physical damage?				
Any signs of accumulated sediment?				
If YES to any of the above, schedule the structure for maintenance.				
Any debris present?				
If YES, remove debris or schedule for maintenance.				
Additional Comments:				
Outfall Structure				
Any signs of erosion?				
Any signs of structure settling?				
Any signs of physical damage?				
Any signs of accumulated sediment?				
If YES to any of the above, schedule the structure for maintenance.				
Any debris present?				
If YES, remove debris or schedule for maintenance.				
Additional Comments:				

**Section V.
Appendices**



Minnesota Pollution Control Agency

**GENERAL PERMIT
AUTHORIZATION TO DISCHARGE STORMWATER
ASSOCIATED WITH SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT PROGRAM**

EFFECTIVE DATE: August 1, 2013

EXPIRATION DATE: July 31, 2018

In compliance with the provisions of the federal Clean Water Act (CWA), as amended, (33 U.S.C. 1251 et seq); 40 CFR Parts 122, 123, and 124, as amended; Minnesota Statutes Chapters 115 and 116, as amended; and Minnesota Rules Chapter 7001 and 7090.

This permit establishes conditions for discharging **stormwater** and specific other related discharges to **waters of the state**. This permit is required for discharges that are from **small Municipal Separate Storm Sewer Systems (small MS4)**, as defined in this permit.

Applicants who submit a complete application in accordance with the requirements of Part II of this permit, and that receive written notification of permit coverage from the **Commissioner**, are authorized to discharge **stormwater** from **small MS4s** under the terms and conditions of this permit.

This permit shall become effective on the date identified above, and supersedes the previous **general permit** MNR040000, with an expiration date of May 31, 2011.

Signature: *John Linc Stine* Date *May 22, 2013*
John Linc Stine
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact the appropriate Minnesota Pollution Control **Agency** offices.

**Municipal Stormwater Program
Municipal Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: 651-296-6300 or toll free in Minnesota: 800-657-3864**

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PART I. AUTHORIZATION UNDER THIS PERMIT

A. Eligibility

To be eligible for authorization to discharge **stormwater** under this permit, the applicant must be an **owner** and/or **operator (owner/operator)** of a **small MS4** and meet one or more of the criteria requiring permit issuance as specified in Minn. R. 7090.1010.

1. Authorized **Stormwater** Discharges

This permit authorizes **stormwater** discharges from **small MS4s** as defined in 40 CFR § 122.26(b)(16).

2. Authorized **Non-Stormwater Discharges**

The following categories of **non-stormwater discharges** or flows are authorized under this permit to enter the **permittee's small MS4** only if the **permittee** does not identify them as significant contributors of pollutants (i.e., **illicit discharges**), in which case the discharges or flows shall be addressed in the **permittee's SWPPP**: water line flushing, landscape irrigation, diverted stream flows, rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR § 35.2005(b)(20)), uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and **wetlands**, dechlorinated swimming pool discharges, street wash water, and discharges or flows from firefighting activities.

B. Limitations on Authorization

The following discharges or activities are not authorized by this permit:

1. **Non-stormwater discharges**, except those authorized in Part I.A.2.
2. Discharges of **stormwater** to the **small MS4** from activities requiring a separate NPDES/SDS permit. This permit does not replace or satisfy any other permitting requirements.
3. Discharges of **stormwater** to the **small MS4** from any other entity located in the drainage area or outside the drainage area. Only the **permittee's small MS4** and the portions of the storm sewer system that are under the **permittee's** operational control are authorized by this permit.
4. This permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (Minn. Stat. § 116D), or the National Environmental Policy Act (42 U.S.C. §§ 4321 - 4370 f).
5. This permit does not replace or satisfy any review requirements for endangered or threatened species, from new or expanded discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species, or adversely modify a designated critical habitat.

6. This permit does not replace or satisfy any review requirements for historic places or archeological sites, from new or expanded discharges which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites.
7. Prohibited discharges pursuant to Minn. R. 7050.0180, subp. 3, 4, and 5.

C. Permit Authorization

In order for an applicant to be authorized to discharge **stormwater** from a **small MS4** under this permit:

1. The applicant shall submit a complete application to discharge **stormwater** under this permit in accordance with Part II.
2. The **Commissioner** shall review the permit application for completeness and compliance with this permit.
 - a. If an application is determined to be incomplete, the **Commissioner** will notify the applicant in writing, indicate why the application is incomplete, and request that the applicant resubmit the application.
 - b. If an application is determined to be complete, the **Commissioner** shall make a preliminary determination as to whether the permit should be issued or denied in accordance with Minn. R. 7001.
3. The **Commissioner** shall provide public notice with the opportunity for a hearing on the preliminary determination.
4. Upon receipt of written notification of final approval of the application from the **Commissioner**, the applicant is authorized to discharge **stormwater** from the **small MS4** under the terms and conditions of this permit.

D. Transfer of Ownership or Control

Where the ownership or significant operational control of the **small MS4** changes after the submittal of an application under Part II, the new **owner/operator** must submit a new application in accordance with Part II.

E. Issuance of Individual Permits

1. The permit applicant may request an individual permit in accordance with Minn. R. 7001.0210, subp.6, for authorization to discharge **stormwater** associated with a **small MS4**.
2. The **Commissioner** may require an individual permit for the permit applicant or **permittee** covered by a **general permit**, in accordance with Minn. R. 7001.0210, subp. 6.

F. Rights and Responsibilities

1. The **Commissioner** may modify this permit or issue other permits, in accordance with Minn. R. 7001, to include more stringent effluent limitations or permit requirements that modify

or are in addition to the MCMs in Part III.D of this permit, or both. These modifications may be based on the **Commissioner's** determination that such modifications are needed to protect water quality.

2. The **Commissioner** may designate additional **small MS4s** for coverage under this permit in accordance with Minn. R. 7090. The **owner/operator** of a **small MS4** that is designated for coverage must comply with the permit requirements by the dates specified in the **Commissioner's** determination.

PART II. APPLICATION REQUIREMENTS

A. Application for Reauthorization

If a permit has been issued by the **Agency** and the **permittee** holding the permit desires to continue the permitted activity beyond the expiration date of the permit, the **permittee** shall submit a written application for permit reissuance at least 180 days before the expiration date of the existing permit. (Minn. R. 7001.0040, subp.3).

B. New Permittee Applicants

To become a **new permittee** authorized to discharge **stormwater** under this permit, the **owner/operator** of a **small MS4** shall submit an application, on a form provided by the **Commissioner**, in accordance with the schedule in Appendix A, Table 3, and the following requirements:

1. Submit Part 1 of the permit application (includes the permit application fee).
2. Submit Part 2 of the permit application, with the **Stormwater Pollution Prevention Program (SWPPP)** document completed in accordance with Part II.D.

C. Existing Permittee Applicants

All **existing permittees** seeking to continue discharging **stormwater** associated with a **small MS4** after the **effective date** of this permit shall submit Part 2 of the permit application, on a form provided by the **Commissioner**, in accordance with the schedule in Appendix A, Table 1, with the **SWPPP** document completed in accordance with Part II.D. **NOTE: Existing permittees** were required to submit Part 1 of the permit application prior to the expiration date (May 31, 2011) of the **Agency's small MS4 general permit No.MNR040000**, effective June 1, 2006, (see Part II.A above).

D. Stormwater Pollution Prevention Program (SWPPP) Document

All applicants shall submit a **SWPPP** document with Part 2 of the application form when seeking coverage under this permit. The **SWPPP** document shall become an enforceable part of this permit upon approval by the **Commissioner**. Modifications to the **SWPPP** document that are required or allowed by this permit (see Part III.G) shall also become enforceable provisions. The **SWPPP** document shall be submitted on a form provided by the **Commissioner** and shall include the following:

1. A description of partnerships with another regulated **small MS4(s)**, into which the applicant has entered, in order to satisfy one or more requirements of this permit.
2. A description of all Regulatory Mechanism(s) (e.g., contract language, an ordinance, permits, standards, etc.) the applicant has developed, implemented, and enforced that satisfies the requirements of each program specified under Part III.D.3, 4, and 5. The description shall include the type(s) of Regulatory Mechanism(s) the applicant has in place at the time of application that will be used to satisfy the requirements. If the Regulatory Mechanism(s) have not been developed at the time of application (e.g., **new permittee** applicants), or revised to meet new requirements of this permit (e.g., **existing permittee** applicants); the

applicant shall describe tasks and corresponding schedules necessary to satisfy the permit requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

3. A description of existing Enforcement Response Procedures (ERPs) the applicant has developed and implemented that satisfy the requirements of Part III.B.1. If the applicant has not yet developed ERPs (e.g., **new permittee** applicants), or existing ERPs must be updated to satisfy new requirements, the description must include tasks and corresponding schedules necessary to satisfy the permit requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).
4. A description of the status of the applicant's storm sewer system map and inventory as required by Part III.C. The description must indicate whether each requirement of Part III.C.1, is satisfied, and for Part III.C.2, is complete, at the time of application. For each requirement of Part III.C that is not satisfied at the time of application, the applicant shall include tasks and corresponding schedules necessary to satisfy the mapping and inventory requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).
5. For each Minimum Control Measure (MCM) outlined in Part III.D:
 - a. The **Best Management Practices (BMPs)** the applicant will implement, or has implemented, for each MCM.
 - b. The measurable goals for each of the **BMPs** identified in Part II.D.5.a, including as appropriate, the months and years in which the applicant will undertake required actions, including interim milestones and the frequency of the action, in narrative or numeric form, as appropriate.
 - c. Name(s) of individual(s) or position titles responsible for implementing and/or coordinating each component of the MCM.
6. For each **applicable Waste Load Allocation (WLA)** approved prior to the **effective date** of this permit, the applicant shall submit the following information as part of the **SWPPP** document:
 - a. **TMDL** project name(s)
 - b. Numeric **WLA(s)**, including units
 - c. Type of **WLA** (i.e., categorical or individual)
 - d. **Pollutant(s) of concern**
 - e. Applicable flow data specific to each **applicable WLA**
 - f. For each **applicable WLA** not met at the time of application, a compliance schedule is required. Compliance schedules can be developed to include multiple **WLAs** associated with a **TMDL** project and shall include:
 - (1) Interim milestones, expressed as **BMPs** or progress toward implementation of **BMPs** to be achieved during the term of this permit
 - (2) Dates for implementation of interim milestones
 - (3) Strategies for continued **BMP** implementation beyond the term of this permit
 - (4) Target dates the **applicable WLA(s)** will be achieved

- g. For each **applicable WLA** the **permittee** is reasonably confident is being met at the time of application, the **permittee** must provide the following documentation:
 - (1) Implemented **BMPs** used to meet each **applicable WLA**
 - (2) A narrative describing the **permittee's** strategy for long-term continuation of meeting each **applicable WLA**.

- 7. For the requirements of Part III.F, **Alum or Ferric Chloride Phosphorus Treatment Systems**, if applicable, the applicant shall submit the following:
 - a. **Geographic coordinates** of the system
 - b. Name(s) of individual(s) or position titles responsible for the operation of the system
 - c. Information listed in Part III.F.3.a(1)-(6), if the system is constructed at the time the application is submitted to the **Agency**
 - d. Indicate if the system complies with the requirements of Part III.F
 - e. If applicable, for each Part III.F requirement that the applicant's system does not comply with at the time of application, describe tasks and corresponding schedules necessary to bring the system into compliance in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

PART III. STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP)

The **permittee** shall develop, implement, and enforce a **SWPPP** designed to **reduce** the discharge of pollutants from the **small MS4** to the **Maximum Extent Practicable (MEP)**, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

If the **permittee** enters into a partnership for purposes of meeting **SWPPP** requirements, the **permittee** maintains legal responsibility for compliance with this permit.

Existing permittees shall revise their **SWPPP** developed under the **Agency's small MS4 general permit No.MNR040000** that was effective June, 1, 2006, to meet the requirements of this permit in accordance with the schedule in Appendix A, Table 2. **New permittees** shall develop, implement, and enforce their **SWPPP** in accordance with the schedule in Appendix A, Table 3. The **permittee's SWPPP** shall consist of the following:

A. Regulatory Mechanism(s)

To the extent allowable under state, tribal or local law, the **permittee** shall develop, implement, and enforce a Regulatory Mechanism(s) to meet the terms and conditions of Part III.D.3, 4, and 5. A Regulatory Mechanism(s) for the purposes of this permit may consist of contract language, an ordinance, permits, standards, or any other mechanism, that will be enforced by the **permittee**.

B. Enforcement Response Procedures (ERPs)

1. The **permittee** shall develop and implement written ERPs to enforce and compel compliance with the Regulatory Mechanism(s) developed and implemented by the **permittee** in accordance with Part III.A.
2. Enforcement conducted by the **permittee** pursuant to the ERPs shall be documented. Documentation shall include, at a minimum, the following:
 - a. Name of the **person** responsible for violating the terms and conditions of the **permittee's** Regulatory Mechanism(s)
 - b. Date(s) and location(s) of the observed violation(s)
 - c. Description of the violation(s), including reference(s) to relevant Regulatory Mechanism(s)
 - d. Corrective action(s) (including completion schedule) issued by the **permittee**
 - e. Date(s) and type(s) of enforcement used to compel compliance (e.g., written notice, citation, stop work order, withholding of local authorizations, etc.)
 - f. Referrals to other regulatory organizations (if any)
 - g. Date(s) violation(s) resolved

C. Mapping and Inventory

1. Mapping

New permittees shall develop, and **existing permittees** shall update, a storm sewer system map that depicts the following:

- a. The **permittee's** entire **small MS4** as a goal, but at a minimum, all **pipes** 12 inches or greater in diameter, including **stormwater flow direction** in those **pipes**
 - b. **Outfalls**, including a unique identification (ID) number assigned by the **permittee**, and an associated **geographic coordinate**
 - c. **Structural stormwater BMPs** that are part of the **permittee's small MS4**
 - d. All **receiving waters**
2. Inventory (2009 Minnesota Session Law, Ch. 172. Sec. 28).
- a. The **permittee** shall complete an inventory of:
 - (1) All ponds within the **permittee's** jurisdiction that are constructed and operated for purposes of water quality treatment, **stormwater** detention, and flood control, and that are used for the collection of **stormwater** via constructed conveyances. **Stormwater** ponds do not include areas of temporary ponding, such as ponds that exist only during a construction project or short-term accumulations of water in road ditches.
 - (2) All **wetlands** and lakes, within the **permittee's** jurisdiction, that collect **stormwater** via constructed conveyances.
 - b. **The permittee** shall complete and submit the inventory to the **Agency** on a form provided by the **Commissioner**. Each feature inventoried shall include the following information:
 - (1) A unique identification (ID) number assigned by the **permittee**
 - (2) A **geographic coordinate**
 - (3) Type of feature (e.g., pond, **wetland**, or lake). This may be determined by using best professional judgment.

D. Minimum Control Measures (MCMs)

The **permittee** shall incorporate the following six MCMs into the **SWPPP**. The **permittee** shall document as part of the **SWPPP**, a description of **BMPs** used for each MCM, the responsible **person(s)** and department(s) in charge, an implementation schedule, and measureable goals that will be used to determine the success of each **BMP**.

1. Public Education and Outreach

New permittees shall develop and implement, and **existing permittees** shall revise their current program, as necessary, and continue to implement, a public education program to distribute educational materials or equivalent outreach that informs the public of the impact **stormwater** discharges have on water bodies and that includes actions citizens, businesses, and other local organizations can take to **reduce** the discharge of pollutants to **stormwater**. The program shall also include:

- a. Distribution of educational materials or equivalent outreach focused on:
 - (1) Specifically selected **stormwater**-related issue(s) of high priority to the **permittee** to be emphasized during this permit term (e.g., specific **TMDL** reduction targets, changing local business practices, promoting adoption of residential **BMPs**, lake

improvements through lake associations, responsible management of pet waste, household chemicals, yard waste, deicing materials, etc.)

(2) **Illicit discharge** recognition and reporting **illicit discharges** to the **permittee**

b. An implementation plan that consists of the following:

- (1) Target audience(s), including measurable goals for each audience
- (2) Responsible **Person(s)** in charge of overall plan implementation
- (3) Specific activities and schedules to reach measurable goals for each target audience
- (4) A description of any coordination with and/or use of other **stormwater** education and outreach programs being conducted by other entities, if applicable
- (5) Annual evaluation to measure the extent to which measurable goals for each target audience are attained

c. Documentation of the following information:

- (1) A description of any specific **stormwater**-related issues identified by the **permittee** under Part III.D.1.a(1)
- (2) All information required under Part III.D.1.b
- (3) Any modifications made to the program as a result of the annual evaluation under Part III.D.1.b(5)
- (4) Activities held, including dates, to reach measurable goals
- (5) Quantities and descriptions of educational materials distributed, including dates distributed

2. Public Participation/Involvement

a. **New permittees** shall develop and implement, and **existing permittees** shall revise their current program, as necessary, and continue to implement, a Public Participation/Involvement program to solicit public input on the **SWPPP**. The **permittee** shall:

- (1) Provide a minimum of one (1) opportunity annually for the public to provide input on the adequacy of the **SWPPP**. Public meetings can be conducted to satisfy this requirement provided appropriate local public notice requirements are followed and opportunity to review and comment on the **SWPPP** is provided.
- (2) Provide access to the **SWPPP** document, Annual Reports, and other documentation that supports or describes the **SWPPP** (e.g., Regulatory Mechanism(s), etc.) for public review, upon request. All public data requests are subject to the Minnesota Government Data Practices Act, Minn. Stat. § 13.
- (3) Consider public input, oral and written, submitted by the public to the **permittee**, regarding the **SWPPP**.

b. Document the following information:

- (1) All relevant written input submitted by **persons** regarding the **SWPPP**
- (2) All responses from the **permittee** to written input received regarding the **SWPPP**, including any modifications made to the **SWPPP** as a result of the written input received

- (3) Date(s) and location(s) of events held for purposes of compliance with this requirement
- (4) Notices provided to the public of any events scheduled to meet this requirement, including any electronic correspondence (e.g., website, e-mail distribution lists, notices, etc.)

3. **Illicit Discharge** Detection and Elimination (IDDE)

New permittees shall develop, implement, and enforce, and **existing permittees** shall revise their current program as necessary, and continue to implement and enforce, a program to detect and eliminate **illicit discharges** into the **small MS4**. The IDDE program shall consist of the following:

- a. Map of the **small MS4** as required by Part III.C.1.
- b. Regulatory Mechanism(s) that effectively prohibits **non-stormwater discharges** into the **small MS4**, except those **non-stormwater discharges** authorized under Part I.B.1.
- c. Incorporation of **illicit discharge** detection into all inspection and maintenance activities conducted under Part III.D.6.e and f. Where feasible, **illicit discharge** inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation).
- d. Detecting and tracking the source of **illicit discharges** using visual inspections. The **permittee** may also include the use of mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures that may be effective investigative tools.
- e. Training of all field staff, in accordance with the requirements of Part III.D.6.g(2), in **illicit discharge** recognition (including conditions which could cause **illicit discharges**), and reporting **illicit discharges** for further investigation.
- f. Identification of priority areas likely to have **illicit discharges**, including at a minimum, evaluating land uses associated with business/industrial activities, areas where **illicit discharges** have been identified in the past, and areas with storage of large quantities of **significant materials** that could result in an **illicit discharge**. Based on this evaluation, the **permittee** shall conduct additional **illicit discharge** inspections in those areas identified as having a higher likelihood for **illicit discharges**.
- g. For timely response to known, suspected, and reported **illicit discharges**:
 - (1) Procedures for investigating, locating, and eliminating the source of **illicit discharges**.
 - (2) Procedures for responding to spills, including emergency response procedures to prevent spills from entering the **small MS4**. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the source of the **illicit discharge** is a spill or leak as defined in Minn. Stat. § 115.061.
 - (3) When the source of the **illicit discharge** is found, ERPs required by Part III.B (if necessary) to eliminate the **illicit discharge** and require any needed corrective action(s).

h. Documentation of the following information:

- (1) Date(s) and location(s) of IDDE inspections conducted in accordance with Part III.D.3.c and f
- (2) Reports of alleged **illicit discharges** received, including date(s) of the report(s), and any follow-up action(s) taken by the **permittee**
- (3) Date(s) of discovery of all **illicit discharges**
- (4) Identification of **outfalls**, or other areas, where **illicit discharges** have been discovered
- (5) Sources (including a description and the responsible party) of **illicit discharges** (if known)
- (6) Action(s) taken by the **permittee**, including date(s), to address discovered **illicit discharges**

4. Construction Site **Stormwater** Runoff Control

New permittees shall develop, implement, and enforce, and **existing permittees** shall revise their current program, as necessary, and continue to implement and enforce, a Construction Site **Stormwater** Runoff Control program that **reduces** pollutants in **stormwater** runoff to the **small MS4** from **construction activity** with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger **common plan of development or sale**, that occurs within the **permittee's** jurisdiction. The program shall incorporate the following components:

a. Regulatory Mechanism(s)

A Regulatory Mechanism(s) that establishes requirements for erosion and sediment controls and waste controls that is at least as stringent as the **Agency's general permit to Discharge Stormwater Associated with Construction Activity No.MN R100001** (as of the **effective date** of this permit). The **permittee's** Regulatory Mechanism(s) shall require that owners and operators of **construction activity** develop site plans that must be submitted to the **permittee** for review and approval, prior to the start of **construction activity**. Site plans must be kept up-to-date by the owners and operators of **construction activity** with regard to **stormwater** runoff controls. The Regulatory Mechanism(s) must require that site plans incorporate the following erosion and sediment controls and waste controls as described in the above referenced permit:

- (1) **BMPs** to minimize erosion
- (2) **BMPs** to minimize the discharge of sediment and other pollutants
- (3) **BMPs** for dewatering activities
- (4) Site inspections and records of rainfall events
- (5) **BMP** maintenance
- (6) Management of solid and hazardous wastes on each project site
- (7) Final stabilization upon the completion of **construction activity**, including the use of perennial vegetative cover on all exposed soils or other equivalent means
- (8) Criteria for the use of temporary sediment basins

b. Site plan review

The program shall include written procedures for site plan reviews conducted by the **permittee** prior to the start of **construction activity**, to ensure compliance with requirements of the Regulatory Mechanism(s). The site plan review procedure shall include notification to owners and operators proposing **construction activity** of the need to apply for and obtain coverage under the **Agency's general permit to Discharge Stormwater Associated with Construction Activity No.MN R100001**.

c. Public input

The program shall include written procedures for receipt and consideration of reports of noncompliance or other **stormwater** related information on **construction activity** submitted by the public to the **permittee**.

d. Site inspections

The program shall include written procedures for conducting site inspections, to determine compliance with the **permittee's** Regulatory Mechanism(s). The written procedures shall:

- (1) Include procedures for identifying priority sites for inspection. Prioritization can be based on such parameters as topography, soil characteristics, type of **receiving water(s)**, stage of construction, compliance history, weather conditions, or other local characteristics and issues.
- (2) Identify frequency at which site inspections will be conducted
- (3) Identify name(s) of individual(s) or position titles responsible for conducting site inspections
- (4) Include a checklist or other written means to document site inspections when determining compliance.

e. ERPs required by Part III.B of this permit

f. Documentation of the following information:

- (1) For each site plan review – The project name, location, total acreage to be disturbed, owner and operator of the proposed **construction activity**, and any **stormwater** related comments and supporting documentation used by the **permittee** to determine project approval or denial.
- (2) For each site inspection - Inspection checklists or other written means used to document site inspections

5. Post-Construction **Stormwater** Management

New permittees shall develop, implement, and enforce, and **existing permittees** shall revise their current program, as necessary, and continue to implement and enforce, a Post-Construction **Stormwater** Management program that prevents or **reduces water pollution** after **construction activity** is completed, related to **new development** and **redevelopment** projects with land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger **common plan of development or sale**, within the **permittee's** jurisdiction and that discharge to the **permittee's small MS4**. The program shall consist, at a minimum, of the following:

a. A Regulatory Mechanism(s) that incorporates:

(1) A requirement that owners and/or operators of **construction activity** submit site plans with post-construction **stormwater** management **BMPs** to the **permittee** for review and approval, prior to start of **construction activity**

(2) Conditions for Post-Construction **Stormwater** Management:

The **permittee** shall develop and implement a Post-Construction **Stormwater** Management program that requires the use of any combination of **BMPs**, with highest preference given to **Green Infrastructure** techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a **construction activity** to the **MEP**:

(a) For **new development** projects – no net increase from pre-project conditions (on an annual average basis) of:

- 1) **Stormwater** discharge Volume, unless precluded by the **stormwater** management limitations in Part III.D.5.a(3)(a)
- 2) **Stormwater** discharges of Total Suspended Solids (TSS)
- 3) **Stormwater** discharges of Total Phosphorus (TP)

(b) For **redevelopment** projects – a net reduction from pre-project conditions (on an annual average basis) of:

- 1) **Stormwater** discharge Volume, unless precluded by the **stormwater** management limitations in Part III.D.5.a(3)(a)
- 2) **Stormwater** discharges of TSS
- 3) **Stormwater** discharges of TP

(3) **Stormwater** management limitations and exceptions

(a) Limitations

- 1) The **permittee's** Regulatory Mechanism(s) shall prohibit the use of infiltration techniques to achieve the conditions for post-construction **stormwater** management in Part III.D.5.a(2) when the infiltration **structural stormwater BMP** will receive discharges from, or be constructed in areas:

- a) Where industrial facilities are not authorized to infiltrate industrial **stormwater** under an **NPDES/SDS** Industrial **Stormwater** Permit issued by the **Agency**
 - b) Where vehicle fueling and maintenance occur
 - c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally **saturated soils** or the top of bedrock
 - d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating **stormwater**
- 2) The **permittee's** Regulatory Mechanism(s) shall restrict the use of infiltration techniques to achieve the conditions for post-construction **stormwater** management, without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas:
- a) With predominately Hydrologic Soil Group D (clay) soils
 - b) Within 1,000 feet up-gradient, or 100 feet down-gradient of **active karst** features
 - c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13
 - d) Where soil infiltration rates are more than 8.3 inches per hour
- 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction **stormwater** management in Part.III.D.5.a(2), the **permittee's** Regulatory Mechanism(s) may allow exceptions as described in Part III.D.5.a(3)(b). The **permittee's** Regulatory Mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process.
- (b) Exceptions for **stormwater** discharge volume

The **permittee's** Regulatory Mechanism(s) may allow for lesser volume control on the site of the original **construction activity** than that in Part III.D.5.a(2) only under the following circumstances:

- 1) The owner and/or operator of a **construction activity** is precluded from infiltrating **stormwater** through a designed system due to any of the infiltration related limitations described above, and
- 2) The owner and/or operator of the **construction activity** implements, to the **MEP**, volume reduction techniques, other than infiltration, (e.g., evapotranspiration, reuse/harvesting, conservation design, green roofs, etc.) on the site of the original **construction activity** that **reduces stormwater** discharge volume, but may not meet the conditions for post-construction **stormwater** management in Part III.D.5.a(2).

(4) Mitigation provisions

There may be circumstances where the **permittee** or other owners and operators of a **construction activity** cannot cost effectively meet the conditions for post-construction **stormwater** management for TSS and/or TP in Part III.D.5.a(2) on the site of the original **construction activity**. For this purpose, the **permittee** shall identify, or may require owners or operators of a **construction activity** to identify, locations where mitigation projects can be completed. The **permittee's** Regulatory Mechanism(s) shall ensure that any **stormwater** discharges of TSS and/or TP not addressed on the site of the original **construction activity** are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:

- (a) Mitigation project areas are selected in the following order of preference:
 - 1) Locations that yield benefits to the same **receiving water** that receives runoff from the original **construction activity**
 - 2) Locations within the same Department of Natural Resource (**DNR**) **catchment area** as the original **construction activity**
 - 3) Locations in the next adjacent **DNR catchment area** up-stream
 - 4) Locations anywhere within the **permittee's** jurisdiction
- (b) Mitigation projects must involve the creation of new **structural stormwater BMPs** or the retrofit of existing **structural stormwater BMPs**, or the use of a properly designed regional **structural stormwater BMP**.
- (c) Routine maintenance of **structural stormwater BMPs** already required by this permit cannot be used to meet mitigation requirements of this Part.
- (d) Mitigation projects shall be completed within 24 months after the start of the original **construction activity**.
- (e) The **permittee** shall determine, and document, who is responsible for long-term maintenance on all mitigation projects of this Part.
- (f) If the **permittee** receives payment from the owner and/or operator of a **construction activity** for mitigation purposes in lieu of the owner or operator of that **construction activity** meeting the conditions for post-construction **stormwater** management in Part III.D.5.a(2), the **permittee** shall apply any such payment received to a public **stormwater** project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e).

(5) Long-term maintenance of **structural stormwater BMPs**

The **permittee's** Regulatory Mechanism(s) shall provide for the establishment of legal mechanism(s) between the **permittee** and owners or operators responsible for the long-term maintenance of **structural stormwater BMPs** not owned or operated by the **permittee**, that have been implemented to meet the conditions for post-construction **stormwater** management in Part III.D.5.a(2). This only includes **structural stormwater BMPs** constructed after the **effective date** of this permit, that are directly connected to the **permittee's MS4**, and that are in the **permittee's** jurisdiction. The legal mechanism shall include provisions that, at a minimum:

- (a) Allow the **permittee** to conduct inspections of **structural stormwater BMPs** not owned or operated by the **permittee**, perform necessary maintenance, and assess costs for those **structural stormwater BMPs** when the **permittee**

determines that the owner and/or operator of that **structural stormwater BMP** has not conducted maintenance.

- (b) Include conditions that are designed to preserve the **permittee's** right to ensure maintenance responsibility, for **structural stormwater BMPs** not owned or operated by the **permittee**, when those responsibilities are legally transferred to another party.
- (c) Include conditions that are designed to protect/preserve **structural stormwater BMPs** and site features that are implemented to comply with Part III.D.5.a(2). If site configurations or **structural stormwater BMPs** change, causing decreased **structural stormwater BMP** effectiveness, new or improved **structural stormwater BMPs** must be implemented to ensure the conditions for post-construction **stormwater** management in Part III.D.5.a(2) continue to be met.

b. Site plan review

The program shall include written procedures for site plan reviews conducted by the **permittee** prior to the start of **construction activity**, to ensure compliance with requirements of the Regulatory Mechanism(s).

c. Documentation of the following information:

- (1) Any supporting documentation used by the **permittee** to determine compliance with Part III.D.5.a, including the project name, location, owner and operator of the **construction activity**, any checklists used for conducting site plan reviews, and any calculations used to determine compliance
- (2) All supporting documentation associated with mitigation projects authorized by the **permittee**
- (3) Payments received and used in accordance with Part III.D.5.a(4)(f)
- (4) All legal mechanisms drafted in accordance with Part III.D.5.a(5), including date(s) of the agreement(s) and name(s) of all responsible parties involved

6. Pollution Prevention/Good Housekeeping For Municipal Operations

New permittees shall develop and implement, and **existing permittees** shall revise their current program, as necessary, and continue to implement, an operations and maintenance program that prevents or **reduces** the discharge of pollutants from **permittee** owned/operated facilities and operations to the **small MS4**. The operations and maintenance program shall include, at a minimum, the following:

a. Facilities Inventory

The **permittee** shall develop and maintain an inventory of **permittee** owned/operated facilities that contribute pollutants to **stormwater** discharges. Facilities to be inventoried may include, but is not limited to: composting, equipment storage and maintenance, hazardous waste disposal, hazardous waste handling and transfer; landfills, solid waste handling and transfer, parks, pesticide storage, public parking lots, public golf courses; public swimming pools, public works yards, recycling, salt storage, vehicle storage and maintenance (e.g., fueling and washing) yards, and materials storage yards.

b. Development and Implementation of **BMPs** for inventoried facilities and municipal operations

Considering the source of pollutants and sensitivity of **receiving waters** (e.g., Outstanding Resource Value Waters (ORVWs), **impaired waters**, trout streams, etc.), the **permittee** shall develop and implement **BMPs** that prevent or **reduce** pollutants in **stormwater** discharges from the **small MS4** and from:

- (1) All inventoried facilities that discharge to the **MS4**, and
- (2) The following municipal operations that may contribute pollutants to **stormwater** discharges, where applicable:
 - (a) Waste disposal and storage, including dumpsters
 - (b) Management of temporary and permanent stockpiles of materials such as street sweepings, snow, deicing materials (e.g., salt), sand and sediment removal piles
 - (c) Vehicle fueling, washing and maintenance
 - (d) Routine street and parking lot sweeping
 - (e) Emergency response, including spill prevention plans
 - (f) Cleaning of maintenance equipment, building exteriors, dumpsters, and the disposal of associated waste and wastewater
 - (g) Use, storage, and disposal of **significant materials**
 - (h) Landscaping, park, and lawn maintenance
 - (i) Road maintenance, including pothole repair, road shoulder maintenance, pavement marking, sealing, and repaving
 - (j) Right-of-way maintenance, including mowing
 - (k) Application of herbicides, pesticides, and fertilizers
 - (l) Cold-weather operations, including plowing or other snow removal practices, sand use, and application of deicing compounds

c. Development and implementation of **BMPs** for **MS4** discharges that may affect Source Water Protection Areas (Minn. R. 4720.5100-4720.5590)

The **permittee** shall incorporate **BMPs** into the **SWPPP** to protect any of the following drinking water sources that the **MS4** discharge may affect, and the **permittee** shall include the map of these sources with the **SWPPP** if they have been mapped:

- (1) Wells and source waters for DWSMAs identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330
- (2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health (MDH) under the federal Safe Drinking Water Act, U.S.C. §§ 300j – 13

d. Pond Assessment Procedures and Schedule

The **permittee** shall develop procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all **permittee** owned/operated ponds constructed and used for the collection and treatment of **stormwater**. The schedule (which may exceed this permit term) shall be based on measureable goals and priorities established by the **permittee**.

e. Inspections

- (1) Unless inspection frequency is adjusted as described below, the **permittee** shall conduct annual inspections of **structural stormwater BMPs** (excluding **stormwater ponds** which are under a separate schedule below) to determine structural integrity, proper function and maintenance needs.

Inspections of **structural stormwater BMPs** shall be conducted annually unless the **permittee** determines if either of the following conditions apply: 1) Complaints received or patterns of maintenance indicate a greater frequency is necessary, or 2) Maintenance or sediment removal is not required after completion of the first two annual inspections; in which case the **permittee** may reduce the frequency of inspections to once every two (2) years. However, **existing permittees** are authorized under this permit to continue using inspection frequency adjustments, previously determined under the *general stormwater permit for small MS4s No.MNR040000*, effective June 1, 2006, provided that documentation requirements in Part III.D.6.h(2) are satisfied.

- (2) Prior to the expiration date of this permit, the **permittee** shall conduct at least one inspection of all ponds and **outfalls** (excluding underground **outfalls**) in order to determine structural integrity, proper function, and maintenance needs.
- (3) The **permittee** shall conduct quarterly inspections of stockpiles, and storage and material handling areas as inventoried in Part III.D.6.a, to determine maintenance needs and proper function of **BMPs**.

f. Maintenance

Based on inspection findings, the **permittee** shall determine if repair, replacement, or maintenance measures are necessary in order to ensure the structural integrity, proper function, and treatment effectiveness of **structural stormwater BMPs**. Necessary maintenance shall be completed as soon as possible to prevent or **reduce** the discharge of pollutants to **stormwater**.

g. Employee Training

The **permittee** shall develop and implement a **stormwater** management training program commensurate with employee's job-duties as they relate to the **permittee's SWPPP**, including reporting and assessment activities. The **permittee** may use training materials from the United States Environmental Protection Agency (USEPA), state and regional agencies, or other organizations as appropriate to meet this requirement. The employee training program shall:

- (1) Address the importance of protecting water quality
- (2) Cover the requirements of the permit relevant to the job duties of the employee
- (3) Include a schedule that establishes initial training for new and/or seasonal employees, and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements

h. Documentation of the following information:

- (1) Date(s) and description of findings of all inspections conducted in accordance with Part III.D.6.e
- (2) Any adjustments to inspection frequency as authorized under Part III.D.6.e(1)
- (3) A description of maintenance conducted, including dates, as a result of inspection findings
- (4) Pond sediment excavation and removal activities, including:
 - (a) The unique ID number (consistent with that required in Part III.C.2.a) of each **stormwater** pond from which sediment is removed
 - (b) The volume (e.g., cubic yards) of sediment removed from each **stormwater** pond
 - (c) Results from any testing of sediment from each removal activity
 - (d) Location(s) of final disposal of sediment from each **stormwater** pond
- (5) Employee **stormwater** management training events, including a list of topics covered, names of employees in attendance, and date of each event

E. Discharges to **Impaired Waters** with a USEPA-Approved **TMDL** that Includes an **Applicable WLA**

For each **applicable WLA** approved prior to the **effective date** of this permit, the **BMPs** included in the compliance schedule at application constitute a discharge requirement for the **permittee**. The **permittee** shall demonstrate continuing progress toward meeting each discharge requirement, on a form provided by the **Commissioner**, by submitting the following:

1. An assessment of progress toward meeting each discharge requirement, including a list of all **BMPs** being applied to achieve each **applicable WLA**. For each **structural stormwater BMP**, the **permittee** shall provide a unique identification (ID) number and **geographic coordinate**. If the listed **structural stormwater BMP** is also inventoried as required by Part III.C.2, the same ID number shall be used.
2. A list of all **BMPs** the **permittee** submitted at the time of application in the **SWPPP** document compliance schedule(s) and the stage of implementation for each **BMP**, including any **BMPs** specifically identified for the **small MS4** in the **TMDL** report that the **permittee** plans to implement
3. An up-dated estimate of the cumulative reductions in loading achieved for each **pollutant of concern** associated with each **applicable WLA**
4. An up-dated narrative describing any adaptive management strategies used (including projected dates) for making progress toward achieving each **applicable WLA**

F. Alum or Ferric Chloride Phosphorus Treatment Systems

If the **permittee** uses an **alum or ferric chloride phosphorus treatment system**, the **permittee** shall comply with the following:

1. Minimum Requirements of an **Alum or Ferric Chloride Phosphorus Treatment System**

a. Limitations

- (1) The **permittee** shall use the treatment system for the treatment of phosphorus in **stormwater. Non-stormwater discharges** shall not be treated by this system.
- (2) The treatment system must be contained within the conveyances and **structural stormwater BMPs** of a **small MS4**. The utilized conveyances and **structural stormwater BMPs** shall not include any **receiving waters**.
- (3) Phosphorus treatment systems utilizing chemicals other than alum or ferric chloride must receive written approval from the **Agency**.
- (4) In-lake phosphorus treatment activities are not authorized under this permit.

b. Treatment System Design

- (1) The treatment system shall be constructed in a manner that diverts the **stormwater** flow to be treated from the main conveyance system.
- (2) A **High Flow Bypass** shall be part of the inlet design.
- (3) A flocculent storage/settling area shall be incorporated into the design, and adequate maintenance access must be provided (minimum of 8 feet wide) for the removal of accumulated sediment.

2. Monitoring During Operation

- a. A designated **person** shall perform visual monitoring of the treatment system for proper performance at least once every seven (7) days, and within 24 hours after a rainfall event greater than 2.5 inches in 24 hours. Following visual monitoring which occurs within 24 hours after a rainfall event, the next visual monitoring must be conducted within seven (7) days after that rainfall event.
- b. Three benchmark monitoring stations shall be established. Table B-1 shall be used for the parameters, units of measure, and frequency of measurement for each station.
- c. Samples shall be collected as grab samples or flow-weighted 24-hour composite samples.
- d. Each sample, excluding pH samples, must be analyzed by a laboratory certified by the MDH and/or the MPCA, and:
 - (1) Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.
 - (2) Detection limits for dissolved phosphorus, dissolved aluminum, and dissolved iron shall be a minimum of 6 micrograms per liter ($\mu\text{g/L}$), 10 $\mu\text{g/L}$, and 20 $\mu\text{g/L}$, respectively.
 - (3) pH must be measured within 15 minutes of sample collection using calibrated and maintained equipment.

Table B-1:
Monitoring Parameters During Operation

Station	Alum Parameters	Ferric Parameters	Units	Frequency
Upstream-Background	Total Phosphorus	Total Phosphorus	mg/L	1 x week
	Dissolved Phosphorus	Dissolved Phosphorus	mg/L	1 x week
	Total Aluminum	Total Iron	mg/L	1 x month
	Dissolved Aluminum	Dissolved Iron	mg/L	1 x week
	pH	pH	SU	1 x week
	Flow	Flow	Mgd	Daily
Alum or Ferric Chloride Feed	Alum	Ferric	Gallons	Daily Total Dosed In Gallons
Discharge From Treatment	Total Phosphorus	Total Phosphorus	mg/L	1 x week
	Dissolved Phosphorus	Dissolved Phosphorus	mg/L	1 x week
	Total Aluminum	Total Iron	mg/L	1 x month
	Dissolved Aluminum	Dissolved Iron	mg/L	1 x week
	pH	pH	SU	1 x week
	Flow	Flow	Mgd	Daily

e. In the following situations, the **permittee** shall perform corrective action(s) and immediately notify the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area):

- (1) The pH of the discharged water is not within the range of 6.0 and 9.0
- (2) Any indications of toxicity or measurements exceeding **water quality standards**
- (3) A spill, as defined in Minn. Stat. § 115.01, subd. 13, of alum or ferric chloride

3. Reporting and Recordkeeping

a. Annual Reporting

The **permittee** shall submit the following information with the Annual Report in Part IV.B. The Annual Report must include a month-by-month summary of:

- (1) Date(s) of operation
- (2) Chemical(s) used for treatment
- (3) Gallons of water treated
- (4) Gallons of alum or ferric chloride treatment used
- (5) Calculated pounds of phosphorus removed
- (6) Any performance issues and the corrective action(s), including the date(s) when corrective action(s) were taken

b. On-Site Recordkeeping

A record of the following design parameters shall be kept on-site:

- (1) Site-specific jar testing conducted using typical and representative water samples in accordance with ASTM D2035-08 (2003)
- (2) Baseline concentrations of the following parameters in the influent and **receiving waters**:

- (a) Aluminum or Iron
- (b) Phosphorus

(3) The following system parameters and how each was determined:

- (a) Flocculent settling velocity
- (b) Minimum required retention time
- (c) Rate of diversion of **stormwater** into the system
- (d) The flow rate from the discharge of the outlet structure
- (e) Range of expected dosing rates

4. Treatment System Management

The following site-specific procedures shall be developed and a copy kept on-site:

- a. Procedures for the installation, operation and maintenance of all pumps, generators, control systems, and other equipment
- b. Specific parameters for determining when the solids must be removed from the system and how the solids will be handled and disposed of
- c. Procedures for cleaning up and/or containing a spill of each chemical stored on-site

G. Stormwater Pollution Prevention Program (SWPPP) Modification

1. The **Commissioner** may require the **permittee** to modify the **SWPPP** as needed, in accordance with the procedures of Minn. R. 7001, and may consider the following factors:
 - a. Discharges from the **small MS4** are impacting the quality of **receiving waters**.
 - b. More stringent requirements are necessary to comply with state or federal regulations.
 - c. Additional conditions are deemed necessary to comply with the goals and applicable requirements of the Clean Water Act and protect water quality.
2. Modifications that the **permittee** chooses to make to the **SWPPP** document developed under Part II.D, other than modifications authorized in Part III.G.3 below, must be approved by the **Commissioner** in accordance with the procedures of Minn. R. 7001. All requests must be in writing, setting forth schedules for compliance. The request must discuss alternative program modifications, assure compliance with requirements of the permit, and meet other applicable laws.
3. The **SWPPP** document may only be modified by the **permittee** without prior approval of the **Commissioner** provided it is in accordance with a. or b. below, and the **Commissioner** is notified of the modification in the Annual Report for the year the modification is made.
 - a. A **BMP** is added, and none subtracted, from the **SWPPP** document.
 - b. A less effective **BMP** identified in the **SWPPP** document is replaced with a more effective **BMP**. The alternate **BMP** shall address the same, or similar, concerns as the ineffective or failed **BMP**.

PART IV. ANNUAL **SWPPP** ASSESSMENT, ANNUAL REPORTING, AND RECORD KEEPING

A. Annual **SWPPP** Assessment

The **permittee** shall conduct an Annual Assessment of their **SWPPP** to determine program compliance, the appropriateness of **BMPs**, and progress towards achieving the measurable goals identified in their **SWPPP** document. The Annual **SWPPP** Assessment shall be performed prior to completion of each Annual Report.

B. Annual Reporting

The **permittee** shall submit an Annual Report to the **Agency** by June 30th of each calendar year. The Annual Report shall cover the portion of the previous calendar year during which the **permittee** was authorized to discharge **stormwater** under this permit. The Annual Report shall be submitted to the **Agency**, on a form provided by the **Commissioner**, that will at a minimum, consist of the following:

1. The status of compliance with permit terms and conditions, including an assessment of the appropriateness of **BMPs** identified by the **permittee** and progress towards achieving the identified measurable goals for each of the MCMs in Part III.D.1-6. The assessment must be based on results of information collected and analyzed, including monitoring (if any), inspection findings, and public input received during the reporting period.
2. The **stormwater** activities the **permittee** plans to undertake during the next reporting cycle
3. A change in any identified **BMPs** or measurable goals for any of the MCMs in Part III.D.1-6
4. Information required in Part III.E, to demonstrate progress in meeting **applicable WLAs**
5. Information required to be recorded or documented in Part III
6. A statement that the **permittee** is relying on a partnership(s) with another regulated **Small MS4(s)** to satisfy one or more permit requirements (if applicable), and what agreements the **permittee** has entered into in support of this effort

C. Record Keeping

1. The **permittee** shall keep records required by the **NPDES** permit for at least three (3) years beyond the term of this permit. The **permittee** shall submit records to the **Commissioner** only if specifically asked to do so.
2. The **permittee** shall make records, including components of the **SWPPP**, available to the public at reasonable times during regular business hours (see 40 CFR § 122.7 for confidentiality provision).
3. The **permittee** shall retain copies of the permit application, all documentation necessary to comply with **SWPPP** requirements, all data and information used by the **permittee** to complete the application process, and any information developed as a requirement of this permit or as requested by the **Commissioner**, for a period of at least three (3) years beyond the date of permit expiration. This period is automatically extended during the course of an

unresolved enforcement action regarding the **small MS4** or as requested by the **Commissioner**.

D. Where to Submit

The **permittee** shall use an electronic submittal process, when provided by the **Agency**, when submitting information required by this permit. When submitting information electronically is not possible, the **permittee** may use the following mailing address:

Minnesota Pollution Control Agency (MPCA)
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, MN 55155-4194

PART V. GENERAL CONDITIONS

- A. The **Agency's** issuance of a permit does not release the **permittee** from any liability, penalty, or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)
- B. The **Agency's** issuance of a permit does not prevent the future adoption by the **Agency** of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the **permittee**. (Minn. R. 7001.0150, subp.3, item B)
- C. The permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- D. The **Agency's** issuance of a permit does not obligate the **Agency** to enforce local laws, rules, or plans beyond that authorized by Minnesota statutes. (Minn. R. 7001.0150, subp.3, item D)
- E. The **permittee** shall perform the actions or conduct the activity authorized by the permit in accordance with the plans and specifications approved by the **Agency** and in compliance with the conditions of the permit. (Minn. R. 7001.0150, subp. 3, item E)
- F. The **permittee** shall at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them which are installed or used by the **permittee** to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The **permittee** shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible. (Minn. R. 7001.0150. subp. 3, item F.)
- G. The **permittee** may not knowingly make a false or misleading statement, representation, or certification in a record, report, plan, or other document required to be submitted to the **Agency** or to the **Commissioner** by the permit. The **permittee** shall immediately upon discovery report to the **Commissioner** an error or omission in these records, reports, plans, or other documents. (Minn. Stat. § 609.671; Minn.R. 7001.0150, subp.3, item G.; and Minn. R. 7001.1090, subp. 1, items G and H)
- H. The **permittee** shall, when requested by the **Commissioner**, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)
- I. When authorized by Minn. Stat. §§ 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the **Agency**, or an authorized employee or agent of the **Agency**, shall be allowed by the **permittee** to enter at reasonable times upon the property of the **permittee** to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by

the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)

- J. If the **permittee** discovers, through any means, including notification by the **Agency**, that noncompliance with a condition of the permit has occurred, the **permittee** shall take all reasonable steps to minimize the adverse impacts on human health, public drinking water supplies, or the environment resulting from the noncompliance. (Minn. R. 7001.0150, subp.3, item J)
- K. If the **permittee** discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the **permittee** shall, within 24 hours of the discovery of the noncompliance, orally notify the **Commissioner**. Within five days of the discovery of the noncompliance, the **permittee** shall submit to the **Commissioner** a written description of the noncompliance; the cause of the noncompliance, the exact dates of the period of the noncompliance, if the noncompliance has not been corrected; the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (Minn. R. 7001.0150, subp.3, item K)
- L. The **permittee** shall report noncompliance with the permit not reported under item K as a part of the next report, which the **permittee** is required to submit under this permit. If no reports are required within 30 days of the discovery of the noncompliance, the **permittee** shall submit the information listed in item K within 30 days of the discovery of the noncompliance. (Minn. R. 7001.0150, subp.3, item L)
- M. The **permittee** shall give advance notice to the **Commissioner** as soon as possible of planned physical alterations or additions to the permitted facility (**MS4**) or activity that may result in noncompliance with a Minnesota or federal pollution control statute or rule or a condition of the permit. (Minn. R. 7001.0150, subp. 3, item M)
- N. The permit is not transferable to any **person** without the express written approval of the **Agency** after compliance with the requirements of Minn. R. 7001.0190. A **person** to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R. 7001.0150, subp.3, item N)
- O. The permit authorizes the **permittee** to perform the activities described in the permit under the conditions of the permit. In issuing the permit, the state and **Agency** assume no responsibility for damage to **persons**, property, or the environment caused by the activities of the **permittee** in the conduct of its actions, including those activities authorized, directed, or undertaken under the permit. To the extent the state and **Agency** may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act, Minn. Stat. § 3.736. (Minn. R. 7001.0150, subp. 3, item O)
- P. This permit incorporates by reference the applicable portions of 40 CFR §§ 122.41 and 122.42 parts (c) and (d), and Minn. R. 7001.1090, which are enforceable parts of this permit.

APPENDIX A

SCHEDULES

Table 1
 Application Submittal Schedule for Existing permittees

Group 1 Within 90 days after permit effective date		
Alexandria, City	Glencoe, City	Oak Grove, City
Andover, City	Grand Rapids, City	Orono, City
Anoka Technical College	Greenwood, City	Ramsey, City
Arden Hills, City	Hibbing, City	Sartell, City
Birchwood Village, City	Hilltop, City	South St Paul, City
Cambridge, City	Inver Hills Community College	St Bonifacius, City
Centerville, City	Little Falls, City	St Cloud Technical College
Chaska, City	Long Lake, City	St Louis County
Dakota County Technical College	Maple Plain, City	St Paul Park, City
Detroit Lakes, City	Minnetonka Beach, City	Waite Park, City
Excelsior, City	Monticello, City	Woodland, City
	Northland Comm & Technical College	
Group 2 Within 120 days after permit effective date		
Anoka, City	Hutchinson, City	Nowthen, City
Anoka-Ramsey Community College	La Crescent, City	Proctor, City
Baxter, City	Lake Superior College - Duluth	Red Wing, City
Brainerd, City	Landfall, City	Shakopee, City
Buffalo, City	Lauderdale, City	South Washington WD
Champlin, City	Litchfield, City	Spring Park, City
Clay County	Mendota, City	St Joseph, City
Coon Creek WD	Midway Township	St Michael, City
Dayton, City	MN State Comm and Tech College-Moorhead	Stearns County
Dilworth, City	Moorhead, City	Tonka Bay, City
East Grand Forks, City	Mounds View, City	West St Paul, City
Elk River, City	North Oaks, City	Willernie, City
Elko New Market, City		Winona, City
Fridley, City		
Group 3 Within 150 days after permit effective date		
Albert Lea, City	Hennepin Technical College Eden Prairie	Owatonna, City
Anoka County	Hermantown, City	Pine Springs, City
Apple Valley, City	Hopkins, City	Plymouth, City
Austin, City	Houston County	Prior Lake, City
Bemidji, City	Hugo, City	Prior Lake-Spring Lake WSD
Benton County	Independence, City	Ramsey County Public Works
Big Lake, City	Inver Grove Heights, City	Ramsey-Washington Metro WD
Big Lake Township	Jackson Township	Redwood Falls, City
Blaine, City	La Crescent Township	Rice Creek WD
Bloomington, City	Laketown Township	Rice Lake Township
Brockway Township	Lakeville, City	Richfield, City

Brooklyn Center, City	Lake Elmo, City	Robbinsdale, City
Brooklyn Park, City	Le Sauk Township	Rochester, City
Burnsville, City	Lexington, City	Rochester Community & Tech College
Capitol Region WD	Lilydale, City	Rochester Township
Carver, City	Lino Lakes, City	Rosemount, City
Carver County	Little Canada, City	Roseville, City
Cascade Township	Loretto, City	Sauk Rapids, City
Century College	Louisville Township	Sauk Rapids Township
Chanhassen, City	Mahtomedi, City	Savage, City
Circle Pines, City	Mankato, City	Osseo, City
Cloquet, City	Maplewood, City	Otsego, City
Columbia Heights, City	Maple Grove, City	Scott County
Coon Rapids, City	Marion Township	Sherburne County
Corcoran, City	Marshall, City	Shoreview, City
Cottage Grove, City	Medicine Lake, City	Shorewood, City
Credit River Township	Medina, City	Spring Lake Park, City
Crystal, City	Mendota Heights, City	Spring Lake, Township
Dakota County	Metropolitan State University	Saint Paul College
Deephaven, City	Minden Township	St Anthony Village, City
Dellwood, City	Minnehaha Creek WD	St Cloud, City
Duluth, City	Minnesota Correctional-Lino Lakes	St Cloud State University
Duluth Township	Minnesota Correctional-St Cloud	St Joseph Township
Eagan, City	Minnetonka, City	St Louis Park, City
East Bethel, City	Minnetrissa, City	St Peter, City
Eden Prairie, City	MNDOT Metro District	Stillwater, City
Edina, City	MNDOT Outstate District	Sunfish Lake, City
Empire Township	MN State University-Moorhead	U of M-Duluth
Fairmont, City	Montevideo, City	U of M-Twin Cities Campus
Falcon Heights, City	Mound, City	Vadnais Heights, City
Faribault, City	Mpls Community/Technical College	Valley Branch WD
Farmington, City	New Brighton, City	Victoria, City
Federal Medical Center	New Hope, City	Waconia, City
Fergus Falls, City	New Ulm, City	Waseca, City
Forest Lake, City	Newport City	Washington County
Gem Lake, City	Normandale Community College	Watab Township
Golden Valley, City	North Branch, City	Wayzata, City
Grant, City	North Hennepin Community College	West Lakeland Township
Ham Lake, City	North Mankato, City	White Bear Lake, City
Hastings, City	North St Paul, City	White Bear Township
Haven Township	Northfield, City	Willmar, City
Haverhill Township	Oakdale, City	Woodbury, City
Hennepin County	Olmsted County	Worthington, City
Hennepin Technical College Brooklyn Pk		

Table 2
Existing Permittees – Schedule of Permit Requirements

<i>Permit Requirement</i>	<i>Schedule</i>
PART II. APPLICATION REQUIREMENTS <ul style="list-style-type: none"> • <i>Submit Part 2 of the permit application with the SWPPP document completed in accordance with Part II.D.</i> 	<ul style="list-style-type: none"> • See Table 1 above.
PART III. STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP) <ul style="list-style-type: none"> • <i>Complete revisions to incorporate requirements of Part III.A-F into current SWPPP.</i> <p><u>Part III.C Mapping and Inventory</u> Part III.C.2 Inventory</p> <ul style="list-style-type: none"> • <i>Complete and submit inventory in accordance with Part III.C.2.</i> <p><u>Part III.D.6 Pollution Prevention/Good Housekeeping For Municipal Operations</u> Part III.D.6.e Inspections</p> <ul style="list-style-type: none"> • <i>Conduct inspections.</i> <p><u>Part III.E Impaired Waters and TMDLs (if applicable)</u></p> <ul style="list-style-type: none"> • <i>Submit all information required by Part III.E.</i> <p><u>Part III.F. Alum or Ferric Chloride Phosphorus Treatment Systems (if applicable)</u></p> <ul style="list-style-type: none"> • <i>Meet requirements for treatment systems under Part III.F.</i> 	<ul style="list-style-type: none"> • Within 12 months of the date permit coverage is extended, unless other timelines have been specifically established in this permit and identified below. • Within 12 months of the date permit coverage is extended. • Annually (Part III.D.6.e(1) and (2)), Quarterly (Part III.D.6.e(3)). • With each Annual Report required in Part IV.B. • Within 12 months of the date permit coverage is extended.
PART IV. ANNUAL SWPPP ASSESSMENT, ANNUAL REPORTING AND RECORD KEEPING <u>Part IV.A Annual SWPPP Assessment</u> <ul style="list-style-type: none"> • <i>Conduct assessment of the SWPPP.</i> <p><u>Part IV.B Annual Reporting</u></p> <ul style="list-style-type: none"> • <i>Submit an Annual Report</i> 	<ul style="list-style-type: none"> • Annually and prior to completion of each Annual Report. • By June 30th of each calendar year.

Table 3
New Permittees – Schedule of Permit Requirements

<i>Permit Requirement</i>	<i>Schedule</i>
PART II. APPLICATION REQUIREMENTS <ul style="list-style-type: none"> • <i>Submit Part 1, and Part 2 of the permit application with the proposed SWPPP document as required by Part II.D.</i> 	<ul style="list-style-type: none"> • Within 18 months of written notification from the Commissioner that the MS4 meets the criteria in Minn. R. 7090.1010, Subpart 1.A. or B. and permit coverage is required.
PART III. STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP) <ul style="list-style-type: none"> • <i>Complete all requirements of Part III.A-F.</i> <p><u>Part III.A Regulatory Mechanism(s)</u> Illicit Discharge Detection and Elimination (see Part III.D.3)</p>	<ul style="list-style-type: none"> • Within 36 months of the date permit coverage is extended, unless other timelines have been specifically established in this permit and identified below; or • Within timelines established by the Commissioner under Part I.F.2.

<ul style="list-style-type: none"> • <i>Develop, implement, and enforce Regulatory Mechanism.</i> <p>Construction Site Stormwater Runoff Control (see Part III.D.4)</p> <ul style="list-style-type: none"> • <i>Develop, implement, and enforce Regulatory Mechanism.</i> <p>Post-Construction Stormwater Management (see Part III.D.5)</p> <ul style="list-style-type: none"> • <i>Develop, implement, and enforce Regulatory Mechanism.</i> <p><u>Part III.B Enforcement Response Procedures (ERPs)</u></p> <ul style="list-style-type: none"> • <i>Develop and implement written ERPs for the Regulatory Mechanism(s) required under Part III.A.</i> <p><u>Part III.C Mapping and Inventory</u></p> <p>Part III.C.1 Mapping</p> <ul style="list-style-type: none"> • <i>Develop a storm sewer system map.</i> <p><u>Part III.C.2 Inventory</u></p> <ul style="list-style-type: none"> • <i>Complete and submit inventory in accordance with Part III.C.2.</i> <p><u>Part III.D Minimum Control Measures</u></p> <p><u>Part III.D.4 Construction Site Stormwater Runoff Control</u></p> <ul style="list-style-type: none"> • <i>Develop, implement, and enforce a Construction Site Stormwater Runoff Control program.</i> <p><u>Part III.D.5 Post-Construction Stormwater Management</u></p> <ul style="list-style-type: none"> • <i>Develop, implement, and enforce a Post-Construction Stormwater Management program.</i> <p><u>Part III.D.6 Pollution Prevention/Good Housekeeping for Municipal Operations</u></p> <p>Part III.D.6.e Inspections</p> <ul style="list-style-type: none"> • <i>Conduct inspections.</i> <p><u>Part III.E Impaired Waters and TMDLs (if applicable)</u></p> <ul style="list-style-type: none"> • <i>Submit all information required by Part III.E.</i> <p><u>Part III.F. Alum or Ferric Chloride Phosphorus Treatment Systems (if applicable)</u></p> <ul style="list-style-type: none"> • <i>Meet requirements for treatment systems under Part III.F.</i> 	<ul style="list-style-type: none"> • Within 12 months of the date permit coverage is extended. • Within six (6) months of the date permit coverage is extended. • Within 24 months of the date permit coverage is extended. • Within 24 months of the date permit coverage is extended. • Within 24 months of the date permit coverage is extended. • Within 24 months of the date permit coverage is extended. • Within 24 months of the date permit coverage is extended. • Within six (6) months of the date permit coverage is extended. See Part III.A Regulatory Mechanism(s). • Within 24 months of the date permit coverage is extended. See Part III.A Regulatory Mechanism(s). • Annually (Part III.D.6.e(1) and (2)), Quarterly (Part III.D.6.e(3)). • With each Annual Report required in Part IV.B. • Within 12 months of the date permit coverage is extended.
<p>PART IV. ANNUAL SWPPP ASSESSMENT, ANNUAL REPORTING AND RECORD KEEPING</p> <p><u>Part IV.A Annual SWPPP Assessment</u></p> <ul style="list-style-type: none"> • <i>Conduct assessment of the SWPPP.</i> <p><u>Part IV.B Annual Reporting</u></p> <ul style="list-style-type: none"> • <i>Submit an Annual Report.</i> 	<ul style="list-style-type: none"> • Annually and prior to completion of each Annual Report. • By June 30th of each calendar year.

APPENDIX B

DEFINITIONS AND ABBREVIATIONS

The definitions in this Part are for purposes of this permit only.

1. **“Active Karst”** means geographic areas underlain by carbonate bedrock (or other forms of bedrock that can erode or dissolve) with less than 50 feet of sediment cover.
2. **“Agency”** means the Minnesota Pollution Control **Agency** or MPCA. (Minn. Stat. § 116.36, subd. 2.)
3. **“Alum or Ferric Chloride Phosphorus Treatment System”** means the diversion of flowing **stormwater** from a **MS4**, removal of phosphorus through the use a continuous feed of alum or ferric chloride additive, flocculation, and the return of the treated **stormwater** back into a **MS4** or **receiving water**.
4. **“Applicable WLA”** – means a **Waste Load Allocation** assigned to the **permittee** and approved by the USEPA.
5. **“Best Management Practices”** or **“BMPs”** means practices to prevent or **reduce** the pollution of the **waters of the state**, including schedules of activities, prohibitions of practices, and other management practices, and also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge, or waste disposal or drainage from raw material storage. (Minn. R. 7001.1020, subp.5.)
6. **“Commissioner”** means the **Commissioner** of the Minnesota Pollution Control **Agency** or the **Commissioner’s** designee. (Minn. Stat. § 116.36, subd. 3.)
7. **“Common Plan of Development or Sale”** means a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.
8. **“Construction Activity”** includes **construction activity** as defined in 40 CFR § 122.26(b)(14)(x) and **small construction activity** as defined in 40 CFR § 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated **stormwater** runoff, leading to soil erosion and movement of sediment into **surface waters** or drainage systems. Examples of **construction activity** may include clearing, grading, filling, and excavating. **Construction activity** includes the disturbance of less than one acre of total land area that is a part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb one (1) acre or more.
9. **“DNR Catchment Area”** means the Hydrologic Unit 08 areas delineated and digitized by the Minnesota DNR. The catchment areas are available for download at the Minnesota DNR Data Deli website. **DNR catchment areas** may be locally corrected, in which case the local corrections may be used.
10. **“Effective Date”** means the date, located on the front cover of this permit, on which this permit shall become effective.

11. **“Existing Permittee”** means an **Owner/Operator** of a **small MS4** that has been authorized to discharge **stormwater** under a previously issued **general permit** for **small MS4s** in the state of Minnesota.
12. **“General permit”** means a permit issued under Minn. R. 7001.0210 to a category of **permittees** whose operations, emissions, activities, discharges, or facilities are the same or substantially similar. (Minn. R. 7001.0010, subp.4.)
13. **“Geographic Coordinate”** means the point location of a **stormwater** feature expressed by X, Y coordinates of a standard Cartesian coordinate system (i.e. latitude/longitude) that can be readily converted to Universal Transverse Mercator (UTM), Zone 15N in the NAD83 datum. For polygon features, the **geographic coordinate** will typically define the approximate center of a **stormwater** feature.
14. **“Green Infrastructure”** means a wide array of practices at multiple scales that manage wet weather and that maintains or restores natural hydrology by infiltrating, evapotranspiring, or harvesting and using stormwater. On a regional scale, green infrastructure is the preservation or restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavements and cisterns.
15. **“High Flow Bypass”** means a function of an inlet device that allows a certain flow of water through, but diverts any higher flows away. **High flow bypasses** are generally used for **BMPs** that can only treat a designed amount of flow and that would be negatively affected by higher flows.
16. **“Illicit Discharge”** means any discharge to a **municipal separate storm sewer** that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the **NPDES** permit for discharges from the **municipal separate storm sewer**) and discharges resulting from firefighting activities. (40 CFR § 122.26(b)(2))
17. **“Impaired Water”** means waters identified as impaired by the **Agency**, and approved by the USEPA, pursuant to section 303(d) of the Clean Water Act (33 U.S.C. § 303(d)).
18. **“Maximum Extent Practicable”** or **“MEP”** means the statutory standard (33 U.S.C. § 1342(p)(3)(B)(iii)) that establishes the level of pollutant reductions that an **Owner** or **Operator** of **Regulated MS4s** must achieve. The USEPA has intentionally not provided a precise definition of **MEP** to allow maximum flexibility in **MS4** permitting. The pollutant reductions that represent **MEP** may be different for each **small MS4**, given the unique local hydrologic and geologic concerns that may exist and the differing possible pollutant control strategies. Therefore, each **permittee** will determine appropriate **BMPs** to satisfy each of the six Minimum Control Measures (MCMs) through an evaluative process. The USEPA envisions application of the **MEP** standard as an iterative process.
19. **“Municipal separate storm sewer system”** or **“MS4”** means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains:
 - a. owned or operated by a state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial

wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district, or drainage district or similar entity, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management **Agency** under section 208 of the federal Clean Water Act, United States Code, title 33, section 1288, that discharges into **waters of the state**

- b. designed or used for collecting or conveying stormwater
- c. that is not a combined sewer; and
- d. that is not part of a publicly owned treatment works as defined in 40 CFR § 122.2

Municipal separate storm sewer systems do not include separate storm sewers in very discrete areas, such as individual buildings. (Minn. R. 7090.0080, subp. 8).

- 20. **“New development”** means all **construction activity** that is not defined as **redevelopment**.
- 21. **“New Permittee”** means an **Owner/Operator** of a **small MS4** that has not been authorized to discharge **stormwater** under a previously issued General **Stormwater** Permit for **small MS4s** in the state of Minnesota and that applies for, and obtains coverage under this permit.
- 22. **“Non-Stormwater Discharge”** means any discharge not composed entirely of **stormwater**.
- 23. **“Operator”** means the **person** with primary operational control and legal responsibility for the **municipal separate storm sewer system**. (Minn. R. 7090.0080, subp.10.)
- 24. **“Outfall”** means the point source where a **municipal separate storm sewer system** discharges to a **receiving water**, or the **stormwater** discharge permanently leaves the **permittee’s MS4**. It does not include diffuse runoff or conveyances that connect segments of the same stream or water systems (e.g., when a conveyance temporarily leaves an **MS4** at a road crossing).
- 25. **“Owner”** means the **person** that owns the **municipal separate storm sewer system**. (Minn. R. 7090.0080, subp.11.)
- 26. **“Permittee”** means a **person** or **persons**, that signs the permit application submitted to the **Agency** and is responsible for compliance with the terms and conditions of this permit.
- 27. **“Person”** means the state or any Agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity, including, but not limited to, association, commission or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, or public or private corporation, or other entity.(Minn. Stat. § 115.01, subd. 10.)
- 28. **“Pipe”** means a closed manmade conveyance device used to transport **stormwater** from location to location. The definition of **pipe** does not include foundation drain **pipes**, irrigation **pipes**, land drain tile **pipes**, culverts, and road sub-grade drain **pipes**.
- 29. **“Pollutant of Concern”** means a pollutant specifically identified in a USEPA-approved **TMDL** report as causing a water quality impairment.

30. **“Receiving Water”** means any lake, river, stream or **wetland** that receives **stormwater** discharges from an **MS4**.
31. **“Redevelopment”** means any **construction activity** where, prior to the start of construction, the areas to be disturbed have 15 percent or more of impervious surface(s).
32. **“Reduce”** means **reduce** to the **Maximum Extent Practicable (MEP)** unless otherwise defined in the context in which it is used.
33. **“Saturated Soil”** means the highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water. **Saturated soil** is evidenced by the presence of redoximorphic features or other information.
34. **“Significant Materials”** includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA); fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with **stormwater** discharges. When determining whether a material is significant, the physical and chemical characteristics of the material should be considered (e.g. the material’s solubility, transportability, and toxicity characteristics) to determine the material’s pollution potential. (40 CFR § 122.26(b)(12)).
35. **“Small Municipal Separate Storm Sewer System”** or **“small MS4”**, means all separate storm sewers that are:
 1. Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, **stormwater**, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management Agency under section 208 of the CWA that discharges to waters of the United States.
 2. Not defined as “large” or “medium” **Municipal Separate Storm Sewer Systems** pursuant to 40 CFR § 122.26 paragraphs (b)(4) and (b)(7) or designated under paragraph (a)(1)(v).
 3. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.
36. **“Stormwater”** means **stormwater** runoff, snow melt runoff, and surface runoff and drainage. (Minn. R. 7090.0080, subp.12.)
37. **“Stormwater flow direction”** means the direction of predominant flow within a **pipe**. Flow direction can be discerned if **pipe** elevations can be displayed on the storm sewer system map.

38. **“Stormwater Pollution Prevention Program” or “SWPPP”** means a comprehensive program developed by the **permittee** to manage and **reduce** the discharge of pollutants in **stormwater** to and from the **small MS4**.
39. **“Structural Stormwater BMP”** means a stationary and permanent **BMP** that is designed, constructed and operated to prevent or **reduce** the discharge of pollutants in **stormwater**.
40. **“Total Maximum Daily Load” or “TMDL”** means the sum of the individual **Waste Load Allocations** for point sources and load allocations for nonpoint sources and natural background, as more fully defined in 40 CFR § 130.2, paragraph (i). A **TMDL** sets and allocates the maximum amount of a pollutant that may be introduced into a **water of the state** and still assure attainment and maintenance of **water quality standards**. (Minn. R. 7052.0010 subp. 42)
41. **“Waste Load Allocation” or “WLA”** means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution, as more fully defined in Code of Federal Regulations, title 40, section 130.2, paragraph (h). In the absence of a **TMDL** approved by USEPA under 40 CFR § 130.7, or an assessment and remediation plan developed and approved according to Minn. R. [7052.0200](#), subp. 1.C, a **WLA** is the allocation for an individual point source that ensures that the level of water quality to be achieved by the point source is derived from and complies with all applicable **water quality standards** and criteria. (Minn. R. 7052.0010 subp. 45)
42. **“Water pollution”** means (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the alteration made or induced by human activity of the chemical, physical, biological, or radiological integrity of waters of the state. (Minn. Stat. § 115.01, subd. 13)
43. **“Water Quality Standards”** means those provisions contained in Minn. R. 7050 and 7052.
44. **“Waters of the State”** means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. (Minn. Stat. § 115.01, subd. 22.)
45. **“Wetlands”** are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. **Wetlands** generally include swamps, marshes, bogs, and similar areas. Constructed **wetlands** designed for wastewater treatment are not **waters of the state**. **Wetlands** must have the following attributes:
 1. A predominance of hydric soils
 2. Inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition and

3. Under normal circumstances support a prevalence of such vegetation. (Minn. R. 7050.0186, subp. 1a.B.)

ABBREVIATIONS AND ACRONYMS

- BMP - Best Management Practice
- CFR – Code of Federal Regulations
- CWA – Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)
- DNR – Department of Natural Resources
- DWSMA – Drinking Water Supply Management Area
- ERPs– Enforcement Response Procedures
- IDDE - Illicit Discharge Detection and Elimination
- MCM – Minimum Control Measure
- MDH – Minnesota Department of Health
- MEP – Maximum Extent Practicable
- MS4 - Municipal Separate Storm Sewer System
- NPDES - National Pollutant Discharge Elimination System
- ORVW - Outstanding Resource Value Water
- SDS – State Disposal System
- TMDL - Total Maximum Daily Load
- TP – Total Phosphorus
- TSS - Total Suspended Solids
- USEPA - United States Environmental Protection Agency
- WLA – Waste Load Allocation